

Issue 40 Winter 2026

Line of Defence

New Zealand's Defence and National Security Magazine



Jim Gilmour:
Is Type 31 or
Mogami the
choice of least
likely regret?

Damien Rogers:
Is Donald Trump
an exception or
a reminder of
the rule?

Jim Rolfe:
NZ-Australia
closer defence
alignment – are
we dreaming?

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Kia ora and welcome to the Winter 2026 issue of Line of Defence – our 40th issue and 10th anniversary edition!

This issue's front cover depicts red and blue pills, taking its metaphoric cue from the Wachowski's 1999 film *The Matrix*. It's a device that attempts to capture the either/or decisions and futures that our defence and national security-focused elected representatives, bureaucrats, academics, and suppliers are seemingly having to choose between.

Frigate or no frigate? Type 31 or Mogami? Larger or more? Crewed or uncrewed? Autonomous, or not? Is the world now more dangerous or just less certain than previously, or neither? Is Trump an exception to the rule or just a theatrical version of it? Is the Anzac partnership a myth or is there some real substance to it? Are we needing more rules in procurement or more agility?

Many of the articles herein engage with these very questions. RADM Jim Gilmour ONZM (Retd) writes, for example, on the topic of frigate replacement, suggesting that the preferred choice is one that enables us to avoid 'future regret'. In his piece, Dr Jim Rolfe writes that although closer NZ-Australia defence alignment is a recurring historical theme, it's lacking adequate supporting structures to make it a reality.

It is particularly pleasing that this milestone edition has provided us with the largest-ever issue of Line of Defence, both in terms of page count and number of contributors. A sincere thank you to our contributing writers and interviewees, many of whom are joining us for the first time, and a few of whom have been with us from the start.

Wayne Mapp and Peter Greener have both contributed articles to LoD since 2016. Their intellectual generosity has been humbling. We've also been fortunate since early on to have had sitting several ministers and shadow spokespersons contributing to the conversation via the magazine, and they have added much interest to its pages.

As Chair of the NZDIA at the time we were getting started, Bernie Diver supported our socialisation into the defence industry, initiating a strong relationship between the magazine and the Association. Another key institutional partner is Massey University's Centre for Defence & Security Studies, a relationship engineered by Professor Rouben Azizian many years ago.

Our sponsors have kept the publication sustainable, and we have been fortunate to have collaborated with many advertisers large and small over the past decade. On this note, I would like to specifically recognise General Atomics Aeronautical Systems (GA-ASI), who stands alone as our most committed and longest-running sponsor.

Over the coming month, we look forward to unveiling a new Line of Defence website and announcing the members of our new editorial board. These are among a range of initiatives aimed at bringing renewed sharpness and inclusivity to the public discussion on the defence and national security of Aotearoa.

Nicholas Dynon,
Lincoln.

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Securing New Zealand's Future: Defence, industry, and resilience

In an increasingly complex strategic environment, partnering with industry and building strong domestic capability are critical to New Zealand's defence, writes Minister of Defence Hon Chris Penk MP.



Hon Chris Penk MP is the Minister of Defence, Minister for Building and Construction, Minister for Veterans, Minister Responsible for the GCSB and NZSIS, Minister for Space and Associate Minister for Emergency Management and Recovery.

As we move swiftly through this year, it is both clear and striking how rapidly New Zealand's strategic environment is evolving. Our recent announcements and investment reflect our increased commitment to defence as we move to modernise our capability.

On that note, I first want to take an opportunity to again recognise and thank the amazing men and women who form our Defence Force, for their contribution to New Zealand. It is also important to recognise the eagerness of New Zealand's industry to support our country's defence.

The assumptions that once underpinned our security down here in the South Pacific – our distance, predictability, and stable supply chains – continue to be under increasing strain.

With our region becoming more contested, we are seeing increased disruption to global shipping, growing competition in the Indo-Pacific, and increasing pressure on supply chains.

These all point to a simple reality: we must be more deliberate in how we secure both our national and our economic security. Those two priorities are inseparable – defence capability and economic resilience go hand in hand, and the partnerships we build with industry will be central to both.

A more complex strategic environment

Our exports help form the powerhouse and the backbone of our small but successful country, and

being a trading nation situated where we are, our prosperity depends on secure sea lines of communication and access to our global markets. As we have experienced, disruptions, whether geopolitical or economic, are felt quickly and directly at home.

For decades, New Zealanders have taken some assurance from our geographic distance, but recent global events have shown that distance is no longer a guarantee of security.

This is why maritime security remains a central focus of our investment. Budget 2026 includes \$880 million in operating funding and \$700 million in capital funding for New Zealand Defence Force activities, including projects identified in the Defence Capability Plan (DCP). These investments support critical fleet maintenance, renewal of maritime capability, and the introduction of uncrewed systems to enhance surveillance and awareness.

As we move forward, these changes will help to ensure New Zealand maintains a credible, interoperable force, one which is able to work alongside partners and protect our interests at home and abroad.

Building resilience and investing through the Defence Capability Plan

Defence plays a key role in strengthening our resilience. A more robust domestic industrial base, supported by closer collaboration with Defence, will ensure we can



sustain capability, respond to crises, and surge when required.

Equally important is our engagement with partners across the Indo-Pacific.

At the Shangri-La Dialogue in Singapore in May, I met with defence counterparts from across the region and a consistent theme in those discussions was the shared assessment of our increasingly complex strategic environment, tied with the corresponding need to invest more deliberately in defence capability.

Our Defence Capability Plan was a central part of those conversations. It signalled clearly that New Zealand is prepared to play its part, working alongside partners to uphold shared interests and regional stability.

New Zealand's Defence Capability Plan sets out our pathway to a modern, combat-capable New Zealand Defence Force.

Since its release, the Government has committed \$5.8 billion in total investment in Defence capability and people, representing a significant uplift in investment that also reflects the challenges we face.

Needless to say, delivery is not just about acquiring platforms and upgrading systems. Modernising our defence force also means ensuring those investments generate long-term value, operationally,

economically, and strategically. That includes building stronger domestic capability, investing in people, and ensuring we can sustain and support our force over time.

Defence as an economic enabler

Defence is already a major contributor to the New Zealand economy, and its potential is even greater.

Currently, more than 80 percent of NZDF spending is directed into the domestic economy. That supports businesses, jobs, and communities right across New Zealand.

Increasingly, we are viewing defence investment not just as a cost, but as a driver of economic activity, innovation, and regional growth.

A recent example is the Homes for Families programme, which I had the privilege of opening at Linton Military Camp. This \$7.8 million development is delivering modern, high-quality housing for Defence personnel and their families. This of course supports local jobs, contractors, and suppliers, bringing a direct economic boost to the region.

To build on this when it comes to delivering broader benefits nationally, we are taking a more deliberate approach to industry engagement.

Through Budget 2026, we are investing in strengthened

engagement capability, including the establishment of a Technology Accelerator programme from July 2026. The initiative will connect Defence directly with New Zealand businesses to solve operational challenges and accelerate innovation. Our aim is to bring that innovation into the Defence capability lifecycle more consistently, from earlier on, and with clearer pathways to scale.

New Zealand's industry has deep expertise across advanced manufacturing. That includes in digital technologies, and emerging capabilities like autonomous and uncrewed systems. We are seeing this in firms developing drone and simulation technologies and in the growing number of businesses supporting Defence operations.

They are great examples of how local innovation can support modern defence capability, and it is partnerships like these that can support Defence while also creating skilled jobs, strengthening high-value industries, and building resilience in our national technology base.

Outside of defence, this is about resilience as much as it is about growth – ensuring New Zealand retains critical expertise and capability that we depend on.

A stronger future through partnership

Ultimately, the challenges we face will require a coordinated effort across government, industry, and our international partners. The Defence Capability Plan provides the direction and our investment through ongoing Budgets will continue to create tangible and meaningful action from that. But it is partnership – particularly with industry – that will help determine our success.

If we get this right, we will do more than strengthen New Zealand's security. We will help build a more innovative, resilient, and prosperous nation – one that is better prepared for the challenges ahead.

Global scale, local impact: How Serco partners with Kiwi businesses to build a combat- capable, resilient Aotearoa New Zealand

Responding to the Indo-Pacific's increasingly volatile strategic environment, the Government has committed to rebuilding the New Zealand Defence Force (NZDF) into a combat-capable force, and anchoring that capability in a strong, self-reliant domestic economy.

"With commitments to lift Defence spending towards 2% of GDP, policymakers' mandate is that public expenditure must go beyond simply procuring equipment. It should serve as an economic engine for Aotearoa," says Clint Williams, NZDF veteran, proud Kiwi, and Director – Serco New Zealand.

"National security and economic growth are intrinsically linked. For Serco, this policy direction reinforces how we already do business. With an unwavering perspective that partnering with government begets an inherent responsibility to make lasting, positive impact on the domestic economy, and national resilience."

Empowering Kiwi businesses, SMEs and supporting Thin Primes

The New Zealand Defence Industry Strategy's introduction of the "Thin Prime" concept has strong potential to push Kiwi businesses up global value chains.



Clint Williams, Director – Serco New Zealand, with son George

"We don't view local industry participation as box-ticking," says Clint.

"For us, as proud Kiwis living and working in Aotearoa, it's about trust, partnership and long-term impact. Across our contracts serving Defence and Government, our people are asking, 'How can we develop new skills and increase capacity in the domestic workforce? Are there opportunities to help connect an NZ business with a global supply chain?'"

Serco aims to create access for innovative local businesses to work with Government agencies, here in Aotearoa and overseas. This

simplifies procurement efforts for the Ministry of Defence, NZDF, and Kiwi businesses, ensuring government investment stays local while delivering reliable, tailored services.

"With extensive experience managing complex sovereign programmes, from maritime engineering to base infrastructure, we can provide structural scaffolding enabling Kiwi Thin Primes to scale successfully," says Clint.

Serco's current work supporting the NZ Ministry of Defence and NZDF across asset sustainment, strategic advice and training reflects



Serco Asia Pacific CEO Andrew Head, Montana Group CEO Lizzi Pearson and Serco New Zealand Director Clint Williams, at the Te Kiwi Māia Charity Dinner 2025

its philosophy of embedding staff locally. Serco's approach has also proven highly successful in other complex sectors across Aotearoa, including corrections, where Serco works with many local Kiwi businesses and charitable trusts delivering far-reaching economic and community benefits.

"Throughout our careers, our leadership team have witnessed the results," Clint says.

"When local businesses grow, communities thrive, high-skill jobs remain in the regions, and Government secures an agile, domestic industrial base that can pivot far better during crises."

Driving technology transfer and global export pathways

The 2025 Defence Capability Plan (DCP)'s establishment of a Technology Accelerator underscores the Government's intent to co-invest with the advanced technology

sector on dual-use, military-grade innovations. New Zealand is world-renowned for its agility, clever problem-solving and rapid prototyping capabilities. However, commercialising breakthroughs and scaling them into international defence markets remains challenging.

This is where a global partner's scale becomes transformative. Serco's global defence business continuously drives innovation through automation and advanced analytics, and actively pursues blending this international research and development with local, specialised know-how. Serco's delivery of the autonomous platform *USX-1 Defiant* for the US' Defense Advanced Research Projects Agency (DARPA) is a prime example. The *Defiant's* groundbreaking capabilities and diverse use cases across the Maritime Domain are game-changing for resilience and efficiency. Serco is proudly working with governments

to help bring these benefits to national forces according to domestic priorities, and to elevate pre-existing assets.

"Crucially, our relationship with local industry is a two-way street," Clint explains.

"While we bring much to the table for localisation, Serco's expansive international footprint means innovations developed by specialised technology firms in Whangārei, Christchurch or Tauranaga don't have to be limited to the domestic market. We've already done this in Australia with JMC Technologies. We have the networks to serve as a high-value export launcher here too, integrating exceptional Kiwi systems into defence systems across Australia, the UK, and beyond."

Enhancing interoperability and workforce capability

The 2025 DCP's strategic imperative is an integrated, combat-capable force acting as a force multiplier alongside NZ's closest ally, Australia, and broader security partners. Achieving true seamless interoperability requires shared operational doctrines, common sustainment methodologies, and world-class, synchronised training regimes.

"Defence in Aotearoa and Australia are large, complex organisations with a matrix of agencies. Our close-knit Serco Asia Pacific team brings knowledge and best practice from Defence across the Five Eyes nations. Many of our people are tenured veterans, and delivering diverse services to Defence in Australia and New Zealand, we understand what works."

Serco has a long-standing history delivering high-end simulator and operational Defence training on both sides of the Tasman. In Aotearoa, Serco proudly provides high-quality simulator-based bridge warfare training and support



Serco delivering training services to the RNZN at Devonport

services on behalf of the Royal New Zealand Navy (RNZN) at HMNZS Philomel. This partnership ensures sophisticated, localised training here in Aotearoa, with RNZN personnel training on shore alongside local specialists. This maximises workforce readiness, and builds long-term local instructional capability and stability.

When this partnership formally began in 2019, Serco was already supporting RNZN Officers through its training services for the Royal Australian Navy (RAN). Serco has been supporting the RAN with Officer training in ship operations, bridge operations, and navigation in a simulated warfighting environment since 2012, and providing maintenance and engineering design services to the Training Authority Maritime Warfare at Sydney's HMAS Watson since 2003, representing a quarter century's partnership with the Australian Defence Force.

"Furthermore, we're committed to ensuring New Zealand's defence industry's human element remains resilient," Clint adds.

"A sustainable industrial base requires a continuous pipeline of talent. As an Employer of Choice for veterans and reservists, Serco invests in domestic workforce development by creating real pathways for veterans, reservists and military families to enter high-value civilian roles.

"Veterans' unique operational insights and leadership values are vital. We ensure that when Defence personnel leave full-time service, they're enabled to continue giving back meaningfully to Defence and their nation."

A shared commitment to New Zealand Inc

Rebuilding a combat-capable defence force while embedding genuine local economic benefits involves strong partnership between the Ministry, NZDF, global prime integrators, and local industry.

Serco works closely with NZ businesses to achieve lasting impact, and proudly gives back to organisations playing critical, yet often behind-the-scenes, roles in our

nation's resilience and community wellbeing. Serco New Zealand is an ongoing partner of Te Kiwi Māia, an organisation delivering outsized impact for veterans, first responders and their families. Serco also supports the Soldiers, Sailors and Airmen's Association of New Zealand, a community-led organisation fostering camaraderie and wellbeing among serving and ex-service NZDF members, enabling veterans and their whānau to reconnect, build skills and enhance mental health.

"We don't see our role merely as a supplier, but as a long-term contributor to Aotearoa's sovereign capability," Clint says.

"By backing local businesses with our global stability, supporting charitable trusts, and transferring cutting-edge technology, we're proud to help build a secure, resilient, prosperous nation. Together, we're ensuring New Zealand's defence spending delivers lasting value for the frontline, economy, and our local communities – today, and into the future."



C-130J Hercules returns home from training exercise in Alaska

RNZAF Hercules returns to Auckland following successful outing at Exercise Red Flag in Anchorage, Alaska.

According to the New Zealand Defence Force, a Royal New Zealand Air Force (RNZAF) C-130J Hercules has successfully taken part in the United States Air Force-led (USAF) Exercise Red Flag, where several air forces had their combat support skills tested in the Alaskan environment.

The transport aircraft operated by No. 40 Squadron at RNZAF Base Auckland was among 85 aircraft involved in the multi-national exercise, which is designed to improve aircrew combat readiness.

Red Flag, held at Joint Base Elmendorf-Richardson (JBER) in Anchorage, provides realistic training in a combined air and ground threat environment, including tasks with requirements such as threat evasion, airdropping of land combat personnel, landing on unprepared airstrips and fighter escort co-ordination.

Alongside New Zealand's C-130J Hercules were fighter aircraft from various United States units and the Republic of Singapore Air Force,



RNZAF C-130J parked on the flight line during Ex Red Flag. Image: USAF

tankers, command and control and transport aircraft including C-130Js from the USAF's No 36 Airlift Squadron based in Yokota, Japan, and aircraft from the Royal Air Force and the Royal Canadian Air Force, all based at JBER and Eielson Air Force Base.

The RNZAF detachment commander, Squadron Leader Adam Palmer, said the exercise had been highly successful.

"The benefit of operating the C-130J is that we can seamlessly

integrate into a large coalition force, as was demonstrated during the Joint Forceable Entry Operation supporting the 11th Airborne Division. The relationships built with partners at Red Flag enable us to successfully integrate during operational deployments," he said.

"To operate with our partners in a high-end, complex threat environment, against a simulated near-peer adversary, ensures our C-130J crews are ready to respond to a wide range of events at home and abroad."

SQNLDR Palmer said New Zealand's participation in Exercise Red Flag was also a significant milestone for the C-130J capability.

"We have taken part in earlier iterations of this exercise with the C-130H, but this was the first time our C-130J had attended," he said.

"This allowed No. 40 Squadron to operate aircraft self-protection systems against simulated threats, and tactical datalinks within a coalition environment."



RNZAF C-130J takes off at Joint Base Elmendorf-Richardson. Image: USAF

A capable Defence Force, and an independent nation

A reformed procurement system will deliver better value, better strategic alignment, genuine interoperability, and independence, writes Labour Party Spokesperson for Defence Hon Damien O'Connor MP.



Hon Damien O'Connor MP is Labour Party Spokesperson for Defence. A Member of Parliament since 1993, he has previously held ministerial portfolios for Agriculture, Biosecurity, Tourism, Trade and Export Growth, and Rural Communities, among others.

Congratulations to Line of Defence on reaching your 40th issue and ten years covering this sector. For a small country, we have an outsized stake in getting defence and security right, and a magazine that takes it seriously does the country a quiet service.

I've spent a long time in public life, and I'm sure of one thing: New Zealanders value their security most when they least have to think about it. That's the goal. But we don't get to take it for granted any longer, and pretending otherwise would be a disservice to the men and women we ask to defend us.

The world has changed. The global arms race has been reignited. We're now talking seriously about autonomous weapons and conflict waged from, and in, space. Closer to home, the strategic environment across the Indo-Pacific is more contested than at any point in my time in Parliament. Sitting back and doing nothing is not an option.

New Zealand's foremost line of defence has always been a stable and secure region. We are a long way from most of the world's trouble, but not immune to it, and our prosperity depends on sea lanes, trade routes and a rules-based order that bigger powers can be tempted to ignore. That's why our security is best advanced through engagement, not isolation. A credible Defence Force and an active, independent foreign policy aren't alternatives. They're two halves of the same job.

That independence matters to us. Labour will hold firmly to our nuclear-free policy and remain a voice for peace and disarmament, even as we invest in real capability. And we'll keep making our own calls. The decision about when, where and how New Zealand commits its people is ours to make, as a sovereign nation, every time.

That's why we won't be joining either pillar of AUKUS. Working closely with partners is one thing, signing away our judgement is another.

None of this is possible without capability, and capability starts with people. Our personnel deserve to be respected, properly remunerated, and offered a genuine career, not just a posting. For too long we've trained good people, then watched them leave because the conditions, the pay and the pathway didn't add up.

Labour will prioritise workforce conditions to lift recruitment and retention, because every piece of kit is only as good as the person operating it. We'll also back them with the right institutions, including representative associations and independent oversight of conduct and culture. A force that looks after its own is a stronger force.

Then there's the hardware, which is ageing and can't keep being deferred. Our frigates, helicopters and other core platforms are reaching the end of their working lives. Replacing them is not a vanity



An NZ Army infantry platoon trains recently with Republic of Korea and US troops. Image: NZDF.

project, it's the price of doing what New Zealanders expect of the Defence Force, from patrolling our vast maritime domain to responding when a cyclone flattens a Pacific neighbour. Labour supports that renewal, done in a way the books can sustain rather than in lurching, election-cycle bursts.

How we buy matters as much as what we buy. We want our procurement system reformed for better value, better strategic alignment, and genuine interoperability with the partners we'll operate alongside. But interoperability is not dependence. We can build kit that works with our friends' systems while keeping our sovereign ability to decide how and when we use it. Capable and connected, but independent, is the thread running through everything I'm describing.

We see real opportunity in deepening the partnerships we already have. Australia is our only formal ally, and strengthening integration with the ADF is the natural priority. Beyond that, we should deepen engagement with our traditional partners, ASEAN, the Pacific Islands Forum and other regional groupings.

We can also contribute well above our weight by hosting combined exercises and building

interoperability with like-minded forces: the relationship that brings Singapore's forces to Ohakea is a good example, strengthening a valued partner, sharpening our people, and deepening trust across the region. These are exactly the relationships that pay off when the pressure comes on.

And when it does, New Zealand will keep showing up. We have a proud record in peacekeeping and rebuilding, of stepping into difficult places to help keep the peace, and we will keep doing it. But we'll do it on our own terms, with our eyes open, and with a Defence Force that is properly equipped, properly led and properly looked after.

There is a wider shift we need to read clearly. The most recent United States National Security Strategy leans hard into burden-sharing, and increasingly burden-shifting, asking allies and partners to carry more and stepping back from spaces it once filled. That has real consequences for us. As the United States recalibrates, New Zealand, alongside other United Nations member states, will be expected to help fill the void, and in practice that means our UN contributions are likely to grow. We should approach that deliberately, on our terms, rather than have it forced on us.

The Korean Peninsula shows how this can work. Our long-standing contribution there is small in number but carries weight well beyond its size, and we have built a solid reputation doing it, a modest commitment with outsized strategic impact. That is exactly the kind of mission we should sustain and build on.

Europe is the next frontier. The war in Ukraine will end, even if we cannot yet say when, and the rebuilding will be immense. Demining and provincial reconstruction are areas where New Zealand has real expertise and a genuine record, and where we could play a critical role in helping a shattered country become safe and liveable again. It is patient, unglamorous work, and exactly the kind of contribution that suits us and that the world remembers.

Labour's direction of travel is peace pursued through credible, sustainable strength, an independent nation that works generously with its friends, and a Defence Force whose people know their country has their back.

To everyone serving, and to those who've served before them, thank you. You are the reason this conversation matters.

Anzac Frigate Replacement: The option of least regret

New Zealand's frigate decision – Type 31 or Mogami? New Zealand should choose the option that maximises utility, adaptability and availability over the next three decades, writes Jim Gilmour



Rear Admiral Jim Gilmour ONZM (Retd) joined the RNZN in 1985. He was appointed Commander Joint Forces New Zealand in 2018, and in 2025 he was appointed an Officer of the New Zealand Order of Merit for his contribution to the NZDF following four decades of service. He is an independent strategic adviser for Babcock.

The views expressed in this article are those of the author alone and are provided in a personal capacity. They do not necessarily reflect the views of any organisations with which the author is affiliated.

As New Zealand reflects on its commitment to Defence through the lens of recent criticism from United States Secretary of War Pete Hegseth, it does so as the country anticipates one of the most consequential defence acquisitions since the replacement of the Leander Class frigates in the 1990s. The first tranche of New Zealand Defence Force's (NZDF) Maritime Fleet Renewal considers replacement of its two Anzac class frigates.

The New Zealand Government has announced that the British Inspiration class Type 31 and Japanese Mogami class frigates would be compared allowing Cabinet to consider recommendations late in 2027. The first ship delivery is expected towards the middle of the next decade.

New Zealand's defence spending debate allows reflection upon how meaningful investment in defence is measured and for some, whether defence should be funded at all.

New Zealand's Defence Force (NZDF) is a national contingent capability and is analogous to an insurance policy. In many ways, this concept explains the challenge in describing the value proposition of a defence force. At some level, reducing worry about future unwelcome events lies at the core of why a government exists. Investment on these terms is a hard sell when cash is tight. An effective insurance policy, like a national security investment, is not measured by how much it costs but the cover it provides most economically.

As New Zealand's Defence Minister Chris Penk inferred when discussing uncrewed capabilities in post budget remarks, New Zealand's government will be alive to opportunities to maximise "...bangs for bucks". It should remind those who are entrusted to buy capabilities for the NZDF that all spending of public money must be defensible. Further, those decisions should be defensible throughout the life of the capability, as often, deviations from 'ideal' have tended to be normalised or tolerated quietly rather than learned from.

As former United States Secretary of Defence, General Jim Mattis noted in his biographical *Callsign Chaos*, "A leader's responsibility is to ensure that when the nation faces its next crisis, it does so with as few regrets as possible". A mistake now would condemn New Zealand to regretting its decision for decades given the expected price tag for this part of its security insurance policy – and New Zealand has form in this area.

The decision to follow Australia with acquisition of the Meko (ANZAC) class ships in the 1990s was worthy of regret from the beginning as a decision to afford only two ships due to cost resulted in very poor availability over the next three decades. Further regret followed as New Zealand elected to not follow the Australian upgrade path due its cost which effectively condemned the NZDF to maintain and operate an orphan fleet of two complex warships.



British Inspiration class Type 31



Japanese Mogami class

There are other strong candidates for regret in recent capability decisions – 105 Light Armoured Vehicles (the enormous expense contributed to other capabilities being unaffordable), disbandment of the Air Combat Capability (a sought after coalition capability retired), Mobile Field Hospital (never effectively set to work), HMNZS Charles Upham (poor ambition and follow through failure). There are others and naturally some readers may dispute this sample of ‘poor decisions’, but should agree that the test in its simplest terms would be – if New Zealand could make these decisions again with the benefit of hindsight– would they?

So, how can New Zealand protect its next decision from future regret? What should New Zealand be getting ready for? Whilst the future is unknowable, it must be the duty of decision makers to attempt to imagine it.

Whilst some effort has been made within New Zealand’s security sector to develop an aggregated view of the future threat landscape, it has struggled to gain traction. A mature repeatable, consultative ‘think tank’ approach to New Zealand’s security is needed as an adjunct to Defence’s existing policy development processes however, evidence of its existence cannot be drawn from recent acquisition decisions or the recent Defence Capability Plan itself.

What the future holds might be mysterious but helpfully the

capability decision makers are able to review NZDF outputs over many years and generate a list of most used attributes including the Royal New Zealand Navy’s (RNZN) contribution to those outputs. This knowledge would logically form the foundations of what the renewed Fleet would be expected to be doing most frequently, and availability of those capabilities will be crucial in the future.

Futurists could reasonably expect New Zealand’s future fleet to be called upon to conduct the following types of operations in the coming decades: surveillance, patrol, interdiction, search and rescue, Humanitarian Assistance and Disaster Relief – both domestically and regionally, regional resilience and security operations, support to other government agencies (Department of Conservation, Antarctic New Zealand, Ministry of Primary Industries, Police, Customs, and others), support to important security partners, especially New Zealand’s only formal ally Australia, support to the International Rule of Law (United Nations and Combined Maritime Force operations) and ‘at sea training’. These outputs are delivered in an unforgiving maritime environment which is hard on equipment and people.

The list is not exhaustive, but it paints a picture that might drive decisions towards a fleet that is made up of many ship types for nations with the buying power to

afford them. Australia is such a nation where patrol, disaster relief, projection of forces, above and below water combat, and other maritime outputs are delivered by specialised capabilities. As an example, Australia will be operating two types of frigates to deliver different sub-specialities.

New Zealand has a different affordability reality where sensible acquisitions must be able to contribute to the wider responsibilities of the Defence Force including ‘at sea’ training. These attributes must be satisfied before considering what the threat seascape might be in 2035 and beyond.

Alignment with Australia dominates conversations around New Zealand’s frigate decision. Often, ‘interoperability with Australia’ is confused with ‘same as Australia’ which is unhelpful. Complimentary capabilities that are interoperable with New Zealand’s defence and security partners makes sense and, importantly, provides an operational point of difference that will be more useful than two or three more ships of a capability Australia is already operating.

Interoperability goes to such features as communications, data sharing, helicopter and boat employment to name a few – there is little interoperability imperative to having the same ship.

So, what questions should inform New Zealand’s decision? Utility, adaptability and availability would



be useful lines of inquiry – what it can do, what else might it do in the future and how dependably available will the ships be?

As the future can only be imagined, it makes sense to equip New Zealand's Defence Force with capabilities with room to grow where possible. For ships this means provision of space, weight, propulsion, cooling, secure spaces and if possible, plug and play capabilities that can be adapted as the threats evolve.

A frigate is a combat vessel and therefore must first be a credible combat vessel. New Zealand will not purchase a ship type that cannot contribute to medium intensity combat operations and survive. The key comparison is whether one option's marginal advantages in this area should outweigh deficiencies in adaptability and utility over the next 30 years.

A comparison of publicly available data between the Type 31 and Mogami classes is instructive. Whilst the Mogami option brings marginally superior combat credentials in certain areas, it does so with a catalogue of limitations, particularly in terms of utility and adaptability. These include very limited ability to embark personnel beyond the crew, severely limited training capacity, limited space for uncrewed systems, disaster relief stores, mission bays and little growth

margin allows for very limited capability breadth beyond its combat functions.

This places the Mogami Frigate at a significant disadvantage. Whilst the Mogami's specialised utility set may be an ideal addition to Australia's fleet, it will not meet New Zealand's long-term needs.

History suggests that by 2050 the RNZN is likely to have spent more time over the preceding 25 years conducting regional partner operations, maritime security operations, disaster relief, hosting specialist teams, delivering training and integrating emerging technologies than near peer combat operations – irrespective of current geopolitical trends. A ship that can meaningfully contribute to the Navy's most called upon outputs whilst being ready for combat operations when required will represent the most "bangs for bucks".

The Type 31, an 'in service' credible combat frigate, brings significant adaptable onboard space for additional sea boats, uncrewed vehicle operations, embarked forces, disaster relief equipment and stores, trainees and future capabilities yet to be imagined. It will support these important aspects whilst additionally being an impressive warfighting ship.

Total cost of ownership may have an influence on the Cabinet decision although material differences in price

between the two options have yet to be revealed. Notwithstanding, New Zealand can only realistically afford a small number of combatant ships. It is therefore crucial that those platforms can perform as many different tasks as is sensible. The Type 31 is a superior multi-role sovereign combat asset compared with Mogami.

The question for New Zealand's Cabinet in 2028 must not be which frigate might be narrowly better on paper when it is introduced to service. The decision should reflect which option would lead to the least regret in 2050 and every year until then.

New Zealand arguably has experienced buyer's regret in the past when it has prioritised affordability or bespoke capability attributes over adaptability. Such decisions have led to generational liabilities that have sapped resources, availability, readiness and operational effectiveness. Rather than tailoring its fleet to today's challenges, New Zealand's ships need to be capable of adapting to emerging threats, disruptive technologies and missions.

The Type 31 will be a stronger addition to New Zealand's fleet than the Mogami on the day it enters service due to space and weight, but its strongest advantage is what it can do and carry in the future. In an uncertain world - growth margin is the surest insurance policy against future regret.



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MQ-9B SeaGuardian®: A Transformative Opportunity for New Zealand's Defence and Industry

New Zealand is looking to tackle two daunting tasks at once: the need to patrol vast swathes of the Pacific Ocean to safeguard its commercial and national security interests while bolstering its innovative domestic defence industry.

General Atomics Aeronautical Systems, Inc. (GA-ASI) has a compelling solution in hand that has seen rapid and growing adoption across the globe from Japan to Canada and India to Germany: the MQ-9B SeaGuardian®.

The MQ-9B SeaGuardian is tailor-made to address the challenges New Zealand faces in monitoring its expansive maritime domain. With its unmatched endurance, advanced sensors, and a rapidly expanding suite of capabilities, the SeaGuardian

provides persistent, multi-domain Intelligence, Surveillance, and Reconnaissance (ISR) that is essential for safeguarding New Zealand's security interests.

Beyond its proven off-the-shelf operational capabilities, the MQ-9B SeaGuardian offers New Zealand a strategic opportunity to strengthen its sovereign industrial base.

GA-ASI has a demonstrated track record of fostering local industry partnerships around the world. By integrating local companies into its global supply chain, GA-ASI ensures that its partnerships create mutual value while building indigenous capabilities.

"GA-ASI has consistently demonstrated its commitment to supporting local industries through

technology transfer and collaboration," said Warren Ludwig, an executive within GA-ASI's International Strategic Development group.

"Our partnerships are designed to align with the strategic goals of our customer nations, ensuring long-term economic growth and operational success."

Strengthening Sovereign Industry

GA-ASI's industry collaboration model has already proven successful in numerous countries.

In India, for example, the MQ-9B program is not only enhancing the nation's ISR capabilities but is also contributing to the growth of its domestic defence industrial base. GA-ASI's partnership with



MQ-9B SeaGuardian equipped with a sonobuoy dispensing and monitoring system during testing in January 2026.



MQ-9B officially joins the RCAF fleet in 2028 — providing the Canadian Armed Forces a multi-role solution for overland and maritime operations.

Bharat Forge, which includes the local manufacturing of landing gear components and Unmanned Aircraft System (UAS) assemblies, is a testament to the company's commitment to supporting indigenous innovation.

Similarly, in Canada, GA-ASI has managed its offset requirements by engaging local companies in design, manufacturing, and life-cycle sustainment programs through partnerships with innovative companies such as CAE and MDA.

These partnerships have not only strengthened Canada's defence

capabilities but also created new economic opportunities for its domestic industry.

A Tailored Approach for New Zealand

GA-ASI is committed to taking a tailored approach to its collaboration with New Zealand. The company's Blue Magic program, which hosts entrepreneurial-style pitch events and workshops, is designed to identify and integrate innovative local companies into its supply chain. Such an initiative in New Zealand would create opportunities for unique

industry capabilities to be considered across the breadth of GA-ASI's UAS portfolio, including for the MQ-9B SeaGuardian.

Potential areas for collaboration include design, manufacturing, airworthiness certification, through-life support, training, and payload and automation/AI development. By focusing on these areas, GA-ASI aims to create a sustainable industry program that aligns with New Zealand's defence and economic objectives.

A key element of GA-ASI's industry engagement with New Zealand is its Memorandum of Understanding with Beca, a leading New Zealand engineering and consultancy firm. Established in April 2026, the arrangement is initially focused towards the MQ-9B SeaGuardian and marks a significant milestone in GA-ASI's efforts to integrate local expertise into its global operations.

GA-ASI is aiming to establish commercial arrangements with a range of other New Zealand companies and institutions, including universities.

A Proven Solution for Tomorrow's Challenges

As the Pacific faces evolving threats, persistent ISR capabilities are essential to staying ahead. Likewise, a robust and healthy sovereign defence industry ensures New Zealand's unique national security and maritime needs can be developed and sustained domestically.

The SeaGuardian delivers this with unmatched versatility, cost-effectiveness, and operational reliability, something GA-ASI has demonstrated to nations around the globe.

By adopting this mission-ready platform, New Zealand will strengthen maritime domain awareness, enable domestic innovation, and strengthen its security readiness across the region.



MQ-9B SeaGuardian is a highly versatile RPAS that delivers persistent real-time ISR across vast oceanic perimeters.

From Spend to System: Defence procurement as economic and industrial strategy

Defence procurement should not be the point at which economic opportunity ends. It should be the point at which national capability begins, writes Josh Wineera.



Lieutenant Colonel Josh Wineera (Retd) is Head of Global Partnerships for the Taranaki Alliance, co-founder of high-tech consultancy Latent, and a strategist on human-autonomous systems.

Budget 2026 may be remembered as the point at which New Zealand began treating defence procurement as more than a just an acquisition process.

Funding has been allocated to maritime fleet renewal and sustainment, a Defence Technology Accelerator, modernised Army training facilities, classified digital services, uncrewed maritime systems and a new polar-capable uncrewed aerial capability. These are vastly different investments, but together they reveal something important about the future direction of Defence.

Increasingly, capability is being understood as more than platforms. Ships require sustainment. Drones require operators, maintainers and concepts of employment. Modern armies require training systems, mission planning tools and digital infrastructure. Capability is becoming increasingly dependent on systems, integration, workforce and adaptation.

Yet procurement success is still often measured by what is delivered, rather than whether each investment leaves New Zealand with greater industrial depth, more skilled people, and stronger sovereign sustainment capacity for decades of capability investment that lie ahead.

Maritime sustainment and restoration funding aims to maintain and extend critical naval capability. The Defence Technology Accelerator seeks to connect industry with

Defence to solve military challenges. New investment in Army training infrastructure recognises that combat effectiveness depends on more than equipment alone. New uncrewed maritime and aerial systems signal a future force increasingly shaped by autonomous and human-machine teamed capabilities.

The more important question is whether they are also being used to deliberately build the foundations that future Defence Capability Plan investments will depend upon.

The true test of defence procurement is not whether it purchases equipment efficiently. It is whether – ten years later – New Zealand possesses more industrial capability, more skilled people, more sovereign sustainment capacity and greater economic resilience than it did before the investment was made.

Maritime Sustainment and Industrial Preparedness

If procurement is also an instrument of industrial strategy, then maritime sustainment is where that proposition can be tested.

The Anzac Frigate Systems Upgrade cost almost \$639 million. We know what capability it delivered to the Navy. A more difficult question is what enduring industrial capability, integration expertise and sovereign sustainment capacity New Zealand retained once the project was complete.



The foundations of sovereign industrial capability already exist in New Zealand.

That question becomes relevant again in Budget 2026. Significant funding has been allocated to sustain and restore the Anzac frigates and HMNZS Canterbury, alongside further work to extend the frigates' service life while replacement options are developed.

The immediate objective is obvious: keep ships operational. The longer-term opportunity is to ensure New Zealand emerges from that investment with stronger engineering capability, systems integration expertise, skilled trades and supply chain resilience.

New Zealand is not starting from zero. Across the country are engineering firms, manufacturers, systems integrators and technology companies already delivering

complex work into demanding domestic and international markets. The challenge is often less about the capability existing and more about how it is connected to Defence requirements.

If maritime sustainment and fleet renewal are to become enduring national capabilities rather than periodic procurement activities, then today's restoration work should also be viewed as preparation for tomorrow's replacement programmes.

Mission Command and Human Preparedness

Budget 2026 also includes investment in a secure mission planning facility at Linton Military Camp and further work to

modernise recruit training through upgraded facilities, simulation and training systems.

Preparedness is often discussed in terms of ships, aircraft and vehicles. Yet military effectiveness increasingly depends on people being able to absorb information, collaborate, decide and adapt faster than an adversary.

A modern army does not become more capable simply because it owns more equipment. It becomes more capable because its people make better decisions under pressure.

Training infrastructure is not support infrastructure. It is capability infrastructure.

The mission command systems, simulation environments and training facilities being funded today will influence how effectively future capabilities are employed tomorrow. They are investments in human performance and decision advantage.

New Zealand already possesses expertise in simulation, digital training environments, aviation, human factors and emerging human-machine teaming disciplines. The opportunity is to connect those capabilities more deliberately to Defence requirements, creating a workforce and knowledge base that grows in value with each successive capability investment.

Autonomous Systems and Future Preparedness

Budget 2026 also funds new uncrewed maritime systems, a polar-capable uncrewed aerial capability and a Defence Technology Accelerator intended to connect industry with Defence to solve military challenges.

Neither should be viewed simply as a technology acquisition.

A drone is not a capability. It is one component of a wider system involving operators, maintainers, trainers, doctrine, integration, data exploitation and continuous adaptation.



The foundations of sovereign industrial capability already exist in New Zealand.

The acquisition of an autonomous system should be the beginning of capability development, not the end of procurement.

The value of a technology accelerator will ultimately be measured by whether it creates enduring pathways between Defence, industry, and future capability programmes.

New Zealand rarely lacks good ideas. The greater challenge has often been converting those ideas into repeat demand, industrial scale and lasting commercial outcomes.

New Zealand industry does not need preferential treatment. It needs visibility, opportunity and a role in solving Defence problems. The real opportunity is creating pathways through which local expertise contributes to capability outcomes while strengthening New Zealand's

industrial and technological base.

If autonomous and uncrewed systems are to become an enduring feature of future military capability, then New Zealand should be thinking beyond acquisition. The greater opportunity lies in developing the integration, training, sustainment and operational expertise that will support these systems throughout their lifecycle and position local industry to contribute to future programmes; domestically and globally.

In Conclusion

The Defence Industry Strategy describes a strong and resilient defence industrial base as a capability in its own right. It emphasises industry partnership, workforce development, technology

acceleration, sustainment and economic growth as important outcomes of Defence investment.

A pattern is emerging.

Maritime sustainment is not simply about ships. Mission command and training investments are not simply about facilities. Autonomous systems are not simply about technology. Each points toward a broader understanding of preparedness that includes industrial capacity, skilled people, integration expertise and long-term resilience.

That should be encouraging for those currently shaping the next iteration of both the Defence Capability Plan and Defence Industry Strategy.

The Prime Minister and Minister of Finance have both argued that New Zealand faces a more uncertain and volatile world. Budget 2026 demonstrates that government is prepared to back that assessment with investment.

The challenge now is two-fold: delivering at pace and ensuring those investments deliver more than the capabilities being acquired. Increasingly, allies are being judged not only by the capabilities they acquire, but by the capacity they contribute.

If New Zealand is to spend billions of dollars implementing the Defence Capability Plan over the coming decades, then success should not be measured solely by the ships, aircraft, systems and infrastructure that enter service. It should also be measured by the industrial depth, workforce skills, sovereign sustainment capacity and technological expertise that remain once the projects are complete.

That is what investing in national security looks like. Not simply acquiring capability for today, but building the capacity to sustain, adapt and regenerate it for the decade to come.

For this, Line of Defence's 20th anniversary edition and Budget 2036 may constitute the report cards.



Human-machine teaming makes New Zealand aviation education take-off

Technology consultancy Latent and Massey University team up to offer a timely new online short-course exploring Manned-Unmanned Teaming.

Massey University School of Aviation and defence and high technology consultancy Latent have launched a new short course focused on Manned-Unmanned Teaming (MUM-T),

MUM-T involves human-crewed vehicles, such as aircraft, working collaboratively with uncrewed systems (drones or robotic ground vehicles) to execute missions. The technology allows a pilot or crew member to control, share data with, or oversee one or more uncrewed platforms from their cockpit

The new course will examine how people and autonomous systems work together in operational environments.

Developed over the past year by aviation, military and industry practitioners, the 40-hour course to be delivered over 14 sessions explores trust, human-machine interaction, communication, decision-making, interoperability, governance and operational integration.

The launch comes at a time when governments and industry are investing heavily in autonomous systems, artificial intelligence and uncrewed capabilities. Recent defence investments in autonomous technologies reflect a broader international trend as organisations seek to harness the speed, scale and persistence these systems can provide.

“Most of the current noise is focused on the platform. The bigger question is the team. How do humans and machines build trust, share information and make decisions together? That’s where many of the operational and organisational issues now sit,” said Josh Wineera, MUM-T course co-creator and Director of Latent who is also a former New Zealand Army Lieutenant Colonel.

While examples are drawn from aviation, the programme explores human-autonomous systems teaming challenges that are emerging across multiple sectors.

“The technology is important, but so is understanding how it will be used. The same questions are emerging across aviation, infrastructure, emergency response, border security and public service sectors. How do



Massey University School of Aviation staff and members of the Latent team at the launch of the new Manned-Unmanned Teaming (MUM-T) programme.

people and autonomous systems learn to work together effectively?” said Derek Tunui, MUM-T Programme Lead and former New Zealand Army Major.

According to the course overview, it will also include insights from industry and legal specialists, alongside academic and operational perspectives, ensuring a balanced and practical understanding of MUM-T across sectors.

Course developers stressed that the programme is not designed as a drone pilot qualification. Rather, it focuses on the human, operational and organisational foundations that underpin effective human-autonomous systems teaming.

While the initial programme is delivered online, the longer-term ambition is to move beyond theory and into practical application. The team hopes future aviation students will ultimately have opportunities to experience human-autonomous systems teaming in simulated and operational learning environments.

“Our ambition is that future aviation students will not only learn about these concepts, but ultimately have opportunities to apply them in realistic training and operational environments,” said Wineera.

Further information about the course is available from the [Massey University School of Aviation](#).

Why artillery should manage battlefield drones

FPV drones are no longer being used as small helicopters dispersed across the force, but rather to deliver surveillance and indirect fire effects, writes Ben Morgan.

On Ukraine's frontline, 70-80% of casualties are now [caused by drones](#). Most by simple, easily produced First Person View (FPV) drones that any adversary with access to an electronics store and explosives can build. Simple, easily built, FPV drones provide new surveillance and strike capabilities that are re-shaping land tactics.

In Ukraine, vast numbers of FPV drones circle over the frontline so any vehicle or group of soldiers moving in the open is immediately spotted and engaged. This limits the ability to manoeuvre, forcing both sides to look for new tactics, including new force structures and command relationships for FPV drones.

Russia and Ukraine are both centralising command and control (C2) of their FPV drones. In both armies, FPV drones and their operators are being consolidated into large units like Ukraine's Magyars Birds or Russia's Rubicon.

It's a development designed to break the frontline stalemate because FPV drones (and the best operators) can be concentrated at the point of main effort. Concentration also simplifies support arrangements with other assets like maintainers, suppliers, surveillance drones, electronic warfare units, cyber experts and intelligence analysts.

Russia and Ukraine are creating units and C2 arrangements that can

create 'mass effects'. An 'effect' is the impact imposed upon the enemy. For example, FPV drones provide a range of effects that includes surveillance, target acquisition or the delivery of direct or indirect fire effects, such as neutralising, suppressing or destroying enemy positions.

What does 'massed effect' mean?

In simple terms, using more FPV drones increases the 'effect' imposed on the enemy through concentration of force. A platoon in defence, for example, will be more greatly impacted upon as a result of an attack by 100 FPV drones compared to an attack by ten. By similar logic, allocating 100 FPV drones to a





surveillance task will deliver better coverage than ten.

Before drones, artillery was the arm that provided the best example of ‘mass effect’ because the fire of any gun or rocket within range can be rapidly concentrated on a target. Essentially, an artillery unit can transfer an ‘effect’ like suppression, neutralisation, or destruction immediately around the battlefield. When multiple artillery units are operating together their ‘effects’ can be massed for great impact on the enemy.

Russia and Ukraine’s drone doctrine emphasises ‘mass effect’

Fighting near Dnipropetrovsk early in 2026, Ukrainian forces demonstrated ‘massed effect’ with FPV drones in offensive operations, using massed formations (or swarms) of drones to create ‘creeping barrages’ or ‘cascades’ of FPV drones to neutralise or suppress enemy positions ahead of advancing infantry. Massed FPV drones meant the attacking force advanced behind a supporting barrage of indirect fire, a tactic familiar to generations

of gunners. The [Preston Stewart YouTube channel](#) provides good analysis of these tactics.

The [‘Two Marines’ Substack](#) provides another useful analysis of how Russia is concentrating drone C2 to create ‘massed effect.’ The article discusses Russian experiments with a C2 concept called a ‘Drone Line’. It observes that the concept “was an attempt to more systematically organize strike UAS [Uncrewed Aerial Systems] assets in support of offensive operations instead of having each regiment or brigade’s UAS assets focus on its own area of responsibility.”

Like their Ukrainian counterparts, Russian planners acknowledge there is benefit in concentration of drone effects through centralised C2 arrangements.

The ‘small helicopter model’ is gone. It evolved into defensive ‘kill webs’

This is a notable change in FPV drone use. Early in the war they were deployed in an ad hoc local fashion, essentially operating as ‘small helicopters’ for a unit. Initially, FPV

drones provided a view ‘over the hill’ and were deployed as spotters for mortars and artillery. The next evolution was attack FPV drones that either dropped munitions or crashed kamikaze-style into targets.

We then witnessed the development of drone-based defensive kill webs over the front line. Modern digital communication networks allowed the ‘sensors’ that locate targets – like drones and soldiers – to instantaneously share information with ‘shooters’ – like missiles, artillery, aircraft, drones and tanks – enabling immediate, accurate engagement. The ‘sensor-shooter’ relationship froze movement on the battlefield because any vehicle or group of soldiers could be spotted and engaged.

C2 arrangements and technology to support massed drone effects

Now we can observe the next phase of FPV drone evolution. The maturation of C2 systems for FPV drones that allow for massive concentrations of FPV drones. Russia and Ukraine have both consolidated large number of drones and drone operators into large units

like Ukraine's Magyars Birds or Russia's Rubicon.

This organisational change allows FPV drones and the best operators to be concentrated at the point of main effort. Alongside logistics and other supporting assets like maintainers, surveillance drones, electronic warfare units, cyber experts and intelligence analysts. A development designed to break the frontline stalemate by creating the ability to mass drone effects at a key point on the battlefield.

It also constitutes a transition in thinking about how FPV drones are used. Ukraine and Russia have transitioned from the 'small helicopter' model of drones supporting infantry companies or platoon-sized units towards building the infrastructure for 'massed effects.'

The next evolution will involve the utilisation of artificial intelligence (AI) for coordination of drones, enhancing a force's ability to pilot large numbers of drones either within an attack swarm or 'on post' maintaining surveillance – activities that currently require human pilots flying individual drones.

Discussing Ukrainian drone innovations and the use of AI, Patrick Tucker [recently commented in Defence One](#) that "future drone operations may not require highly trained drone pilots, just regular soldiers who can outline basic mission parameters. The swarm, sharing and analyzing data as a group, would figure out the hard stuff."

Already, there are reports of AI being used this way but they are not corroborated. Nevertheless, it is likely only a matter of time before this is confirmed.

A feature of Ukraine's tactical success is the *Kropyva* [computerised tactical information and fire control system](#). The system, which is essentially an Android app, was developed around 2014-16, and is maturing in service.



Kropyva maps where friendly and enemy forces are and allows units to transfer information about their situation to each other digitally. This means that tactical information can be shared immediately and accurately between vehicles, or between units.

The app also integrates drones and ballistic calculations. For instance, drone footage can be shared instantly with a tank, a mortar detachment or an artillery battery that receives not just information about the target, but also the ballistic data to immediately engage the target.

It is easy to see a future in which fire control apps, linked to centralised drone swarms enabled by AI, will simplify the use of massed drone 'effects' on the battlefield. Frontline soldiers could use an app to 'call forward' the support they need from drone units located behind the frontline.

Such a capability would reduce the need for frontline units to

operate and maintain large numbers of FPV drones. In the event that resources are required, apps like *Kropyva* would allow them to be easily drawn forwards. This reduces logistical and management stress on small unit command chains.

Likewise, if resources are required elsewhere, they could be quickly moved to other points on the battlefield because, like artillery fire, FPV drone effort can easily be switched to another area.

But militaries struggle to adapt

Unfortunately, militaries around the world tend to behave conservatively and are slow to adapt to change. Last year, for instance, [several NATO armies](#) received an important 'wake up' call during Estonia's Exercise Hedgehog 2025. The exercise was a large wargame pitting approximately 16,000 NATO soldiers against a 'live' enemy.

[RBC-Ukraine reported](#) Estonia's head of drone systems Arbo Probal as saying "...the exercise simulated a



to concentrate their battlefield effects. Likewise, centralised procurement, maintenance and replacement of drones produce economies of scale that allow for the deployment of larger numbers of drones.

The next step is to consider whether there is a place in the current force structure that can fulfil this role, or if there is a need to create a new force element.

My view is that FPV drones are a new and important technology but that the ‘effects’ they deliver already exist and slot easily into the artillery’s existing operational model. For example, artillery already manages a surveillance battle, runs the targeting process, and provides tactical commanders with support integrating indirect fire into plans.

Notably, artillery’s current operational model – sending liaison forward to support decision-making, then managing the movement of indirect fire effects (i.e. artillery fire) forward to support manoeuvre translates easily into managing similar FPV drone effects.

Likewise, the technical and logistical processes that support artillery equipment and the movement of large amounts of ammunition are transferable into managing large numbers of FPV drones. The roles and disciplines of the gun position translate easily into an operational model for forward drone operations.

Rather than trying to ‘re-invent the wheel’ or viewing FPV drones as ‘small helicopters’ dispersed across the force, it makes sense to centralise these resources and take an ‘effects-based’ approach to their management.

The battlefield effects of FPV drones are essentially surveillance and indirect fire, and the existing artillery corps provides a natural home for management of these weapons.

“contested and congested” battlefield designed to maximize stress and cognitive overload for units, testing their adaptability. Exercise Hedgehog’s aim was to break Estonia and its allies’ battlegroups and thereby demonstrate areas of weakness.”

According to media reports and commentators, the exercise succeeded in its aim, with NATO’s battle groups quickly ‘defeated’ by a relatively small force of Ukrainian drones.

RBC-Ukraine reported that the Ukrainian-led opposition force deployed a density of roughly 30 drones per 10 square kilometres, about half the current density on the frontline. Yet, even with this low concentration of drones the effect was lethal. Any unconcealed movement was immediately identified and engaged. “The attackers quickly ‘eliminated’ two entire battalions and rendered the NATO force incapable of battle,” reported the [Centre for European Policy Analysis](#).

This exercise could indicate that NATO forces are still thinking of drones as ‘small helicopters’ deployed in a de-centralised manner to support frontline units rather than in terms of their ability to deliver ‘massed effect’. This resulted in a failure to appreciate their adversary’s ability to saturate an area with surveillance to locate targets and then to swarm attack drones in overwhelming force.

Now Pacific militaries have an opportunity to adapt

Pacific militaries are fortunate in that they have an opportunity to learn from this experience and build C2 and force structures to manage and maximise the ‘effects’ of FPV drones.

In my opinion, the key elements of a successful force structure to manage FPV drones in the land domain are that C2 and logistics need to be centrally managed.

Tactically, centralising C2 allows for FPV drones to be used en masse

New Zealand-Australia Defence Relations: Renewing the original intent

Moves towards closer NZ-Australia defence alignment are a recurring historical theme, but it needs stronger supporting structures to make it a reality, writes Dr Jim Rolfe.



Dr Jim Rolfe is a Senior Fellow at the Centre for Strategic Studies, Victoria University of Wellington. A former New Zealand Army officer and public servant, he is a past Deputy Director of the Australian Civil-Military Centre.

Two statements bookend the New Zealand-Australia defence relationship. They say much the same thing.

In 1890, at the [Australasian Federation Conference](#), New Zealand delegate and Minister of Defence William Russell noted that: 'New Zealand has a large sea-coast..., and we should be only too happy... to join with Australia in any system of naval defence'. Russell was, in this speech, quite explicitly rejecting assimilation in any form and promoting harmonisation of relevant laws and cooperation (including naval) between agencies as the sensible alternative.

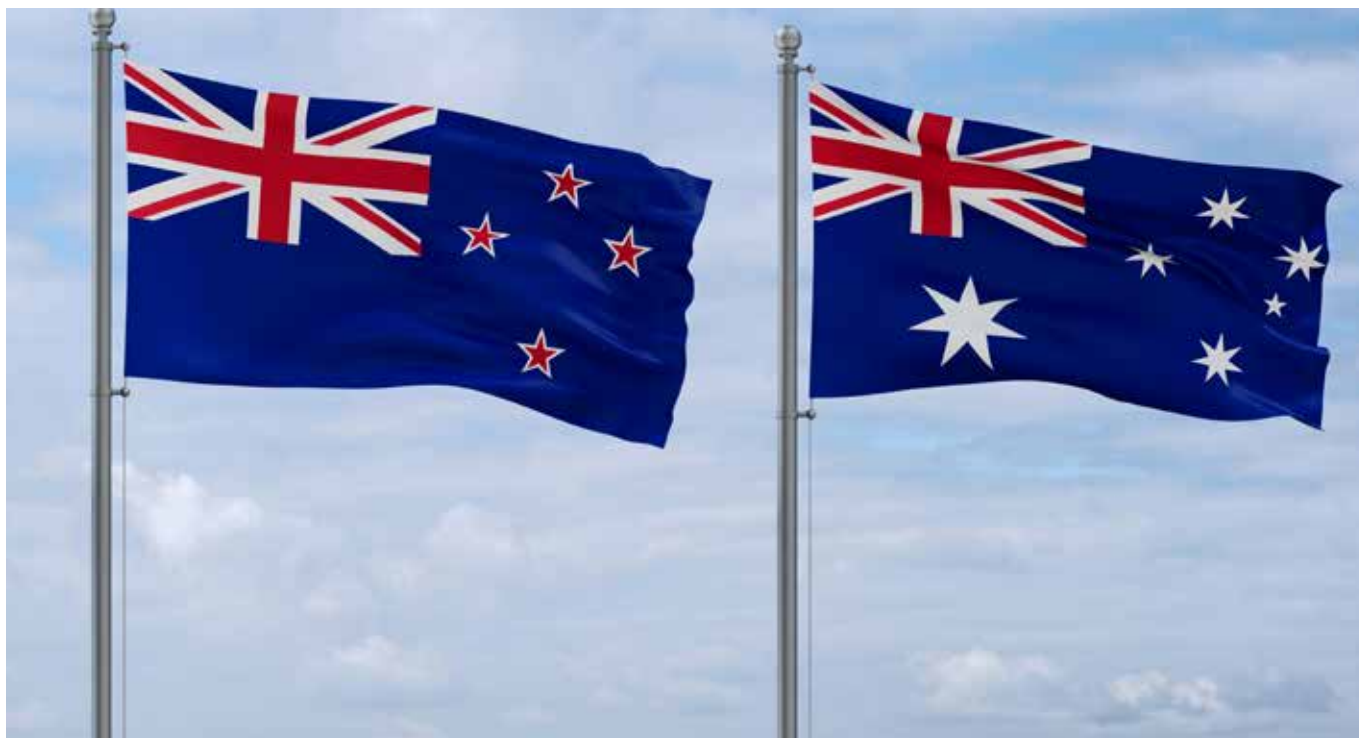
In 2026, Prime Minister Christopher Luxon, when asked if New Zealand and Australian armed forces [would be more aligned in the future](#) replied: 'absolutely... we've already started that process'. Alignment leads to the ability to work together when required, the basis of any cooperative relationship.

The causes and consequences of the current moves towards 'closer alignment' are easy to see. Increased global instability, major power interest in the two countries' shared region, and a sense that armed force will remain necessary to resolve international problems all play a part. So too does the history of shared and cooperative defence relationships.

The external environment has led to a renewed domestic focus on defence issues and a distinct increase in public rhetoric around defence capabilities and the appropriate or necessary bilateral defence relationship. The language is tied to the current government, but in practice, if not in rhetoric, the substance has not changed over the years and will not change in the future.

None of this is new. The modern defence relationship between the countries came of age in 1944 with the signing of the [Canberra Pact](#), more formally the Australian-New Zealand Agreement. In his [address to Parliament](#) on the subject, Prime Minister Peter Fraser emphasised that the objectives were 'collaboration and co-operation, for a fuller exchange of information, for consultation before expressing views elsewhere... but, where unity of opinion cannot be achieved, then there shall be a friendly agreement to differ'.

The agreement, although now outdated and rarely referred to in substantive terms, established the principle of policy and operational defence cooperation between Australia and New Zealand, especially in relation to the South and Southwest Pacific. The principle holds today, although the specific activities noted in the Agreement have generally not been developed beyond the initial statements of intent.



In practice, a formal and systematic political relationship has existed between the defence establishments bilaterally since the late 1960s, and before that (from 1952) through the [ANZUS Council](#), with more or less annual meetings of ministers and their senior defence officials.

The 1991 '[Closer Defence Relations](#)' initiative continues to be the formal description of how the countries will relate to each other in the military sphere. The rhetoric surrounding CDR has been reiterated and formally refined several times since then, but it has not changed in detail. [CDR's guiding principles](#) are of sovereignty, shared interests, openness, cooperation and practical collaboration.

Formal meetings and associated statements have been a feature of the recent past. Foreign and defence ministers of the two countries met as a group in early 2024 at the [ANZMIN 2+2](#) meeting; the first such meeting and one which is to be an annual event. In March 2026, the two countries signed the 'ANZAC 2035' statement. This gave a vision of the armed forces being able to work together in an 'increasingly

seamless and integrated combat-capable Anzac force by 2035', while remaining respectful of their individual sovereign status.

The supports for a closer working relationship are already in place. The [2025 Defence Capability Plan](#) makes multiple references to becoming 'more integrated with our ally Australia, making both countries stronger'. (Integration in this sense refers to the capability to work together in a combined setting rather than through political control.) Business cases for defence capability now must answer as the first question: 'What is the Australian approach, and is there any reason for New Zealand to take a different approach?' Signals can get no clearer.

Each of the military services is conforming to this vision of cooperation and interoperability, and working with its Australian counterpart within separate structural frameworks, but with a common approach to the relationship.

The Army approach is the most formally structured. In the years since the 1990s, the Army had, for a variety of reasons, started to

follow an '[orphan doctrine](#)' that was a mixture of ideas: some elements developed locally and others learnt internationally. In 2022, the Chief of the NZ Army [directed the Army to realign](#) and to conform with Australian Army doctrine.

In 2023, [Plan ANZAC](#) formalised this approach by laying out comprehensive principles and processes to bring the two armies more closely together. The realignment was both to ensure that any doctrinal gaps between Australia and New Zealand disappeared and to manage resources more effectively.

The Air Forces have a 2024 [Joint Guidance Statement](#) that 'reinforces and enhances the two countries' enduring commitment and co-operation with each other in military aviation'. The symbolic representation of the relationship was the appointment of a senior RNZAF officer to be Deputy Air Commander in Australia. In practice, the two air forces have always been able to operate together when necessary.

The two navies also work together when appropriate. Naval cooperation, in the words of the [2024 statement on CDR](#), is

‘underpinned by complementary strategies’, and ‘both navies maximise operation of common or complementary systems to optimise combined training and interoperability of our maritime capabilities’. As with the other two services, the navies also have no difficulties working together when necessary.

These initiatives do no more than confirm the rhetoric. Since the end of WW II, the two armed forces have routinely worked closely together, normally seamlessly, on operations, both as an Anzac force and as individual components within a larger UN, Commonwealth, or coalition of the willing formation. The operational capabilities are supported by routine and regular unit training exercises and by individual personnel exchanges to ensure that the compatibility of national approaches is understood at all levels.

It has been no accident that the armed forces can work closely together and that each can work within a wider allied grouping. The so-called ‘Five Eyes’ countries (Australia, Canada, the UK and the US, with New Zealand as a later joiner in many cases), have had a formal relationship between the individual armed forces since the end of WW II. These are known separately (and, of course, using military acronyms) as [AUSCANNZUKUS](#) for the navies, [ABCANZ](#) for the armies and [AFIC](#) for the air forces.

These single-service groupings sit alongside many other five-country defence relationships covering, for example, defence communications, defence science and technology, defence personnel matters, and defence digital technology. In all cases, the intent and the outcome are to learn from each other, to standardise operational procedures where sensible, and to ensure interoperability when necessary.

The wider relationships are important. They give additional substance to the Australia-New Zealand relationship and allow the two countries, where sensible, to operate easily as a combined force.

But the bilateral relationship is the core. And that brings us back to the question of how to get closer, as current rhetoric demands, when in practical terms closeness is already achievable whenever that is needed.

The answer lies not in any framework of ad hoc cooperation in day-to-day operations, no matter how important they may be, but in the supporting structures. And those supporting structures are weak. We have noted that ministers and senior officers meet at least annually in bilateral forums and participate in a range of multilateral activities. But those are the kinds of formal relationships that any two countries can develop without much effort. There is nothing other than routine staff processes to support those formal meetings.

What is needed is a return to the vision of the relationship in 1944. The Canberra Pact envisaged, and the governments agreed, that there would be ‘continuous consultation’ on all defence matters of mutual interest, joint planning, a common doctrine for organisation, equipment and training, and an interchange of staff. Some of that exists, especially in terms of doctrine, although doctrinal matters have more to do with the five-country relationships than with the bilateral links.

A model for a revitalised Anzac policy infrastructure could be a combination of the current ministerial-level meetings at the apex, supported by senior military staff exchanges as managers of the detail of the bilateral relationship. These positions could be in both the policy headquarters and the joint operations centres, to cover the full potential of the relationship. A range of working groups along the lines

of the five-country approach, but dealing with specifically bilateral interests, should be developed on an ad hoc or permanent basis as necessary to take bilateral issues to mutually agreed conclusions.

As well, there are more areas in which the two countries could cooperate on a routine operational basis. Why not think of a combined maritime surveillance centre for the Tasman? Or the maintenance of a skeleton headquarters, with the role of developing combined contingency plans and the ability to act as a basis for a deployable combined headquarters if required? Or the periodic establishment of a combined naval task group for operations in the South Pacific or further afield, controlled by the combined headquarters?

The possibilities are wide, but they require imagination and resolve to make them work.

It is clear that the Australian relationship needs to be seen as fundamental. It is independent of other international groupings, but it operates within the broader context of multinational defence relationships, especially those involving the five traditional partners. The five-country grouping is the strategic superstructure that allows the operational and tactical bilateral relationship to function easily.

The short-term issue may well be one of re-invigorating the military relationship between the countries, but that is a means to two quite different ends.

The first end is operational. It is to ensure that the forces can work together effectively whenever required. The second, perhaps more important, strategic end is to maintain the long-term relationships and ability to work with the traditional partners and with other like-minded countries. That is a by-product of the operational relationship and of the existing international systems.

POSTGRADUATE CERTIFICATE IN INTELLIGENCE

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The programme of study consists of two 30-credit courses:

Qualification Requirements

Semester ONE, 294741: Intelligence in the International Security Environment

A critical examination of intelligence theory and practice, focusing on key concepts and methodologies of intelligence collection and analysis, analytical tools, frameworks and concepts applied to investigations and operations in the contemporary international security environment.

Course Controller:

Dr Rhys Ball, Centre for Defence and Security Studies
(Auckland)

Semester TWO, 294744: Intelligence Operations

A comprehensive grounding in the operational intelligence environment in the second half of the 20th century, into the 21st century. Participants will consider the development of intelligence practices both in New Zealand and around the world, from the evolution of intelligence contributions from the end of World War Two, to the intelligence challenges of the 2020s. Intelligence operations are critically reviewed, including intelligence success and failure, espionage against friends and allies, and policing and private intelligence formats.

Course Controller:

Dr John Battersby, Senior Fellow, Centre for Defence and Security Studies (Wellington)

To enroll in this qualification, students must have been awarded or qualified for a relevant Bachelor's degree, or be able to demonstrate scholarly work in conjunction with extensive relevant professional experience for Admission with Equivalent Status.

For further information, please contact John: j.m.battersby@massey.ac.nz, or Rhys: r.ball@massey.ac.nz.



The Interview: David Galligan

In this exclusive interview, the New Zealand Defence Force's (NZDF) Defence Science & Technology (DST) Director Dr David Galligan talks with chief editor Nicholas Dynon on DST, the Defence Capability Plan (DCP), and how industry can contribute to science and technology (S&T) in the national interest.



Dr David Galligan is New Zealand's Chief Defence Scientist and Director of Defence Science & Technology, NZDF. He joined DST as an Operations Analyst in 2002 and was appointed Group Director for Electronic Warfare Systems in 2020.

The Underwater Research Laboratory was established in 1950 under the then Department of Scientific and Industrial Research to research underwater acoustics for the Royal New Zealand Navy (RNZN).

In 1955, renamed the Naval Research Laboratory, the lab was transferred to RNZN control. With its terms of reference, including prosecuting "research into underwater detection" and keeping "abreast of overseas developments in other scientific fields of interest to Navy", its maritime remit was cemented.

Fast-forward half a century, and under a new name, the Defence Technology Agency designed the Kahu hand-launched drone, creating history in 2006 by conducting New Zealand's first autonomous Uncrewed Aerial Vehicle (UAV) flight. By 2012, Kahu would see

operational deployment, providing vital ISR capabilities for New Zealand Provincial Reconstruction Team patrols in Bamiyan province, Afghanistan.

In February of this year, the now renamed Defence Science & Technology (DST) reached new altitudes, partnering with Dawn Aerospace to test how well naval radar can track high-speed, high-altitude vehicles. Capable of speeds of up to Mach 1.1 and altitudes of 25 kilometres, Dawn Aerospace's suborbital spaceplane put HMNZS Te Kaha's surveillance radar systems through its paces along the Canterbury coast.

By conducting that testing domestically, the NZDF gained real-world performance data without relying on overseas test capabilities. Dr Galligan said the tests demonstrated "the value of New



Dr Galligan and Maritime Component Commander CMDRE Shane Arndell sign second SLA for Anzac frigate critical scientific support, 2025. Image: NZDF.



NZ Army training on FPV drone platforms at Burnham Military Camp, 2025. Image: NZDF.

Zealand industry, defence capability and national infrastructure working together with purpose.”

From underwater beginnings to its current activities at the fringes of the Earth’s atmosphere and beyond, DST now pursues specialist programmes across areas including data analytics and artificial intelligence, cyber and electromagnetic warfare, sensing, human performance, autonomous systems, space, and future operating concepts.

Dr Galligan’s role places him at the intersection of defence policy, innovation ecosystems, emerging science, operational capability, and strategic foresight. As DST Director, he is responsible not only for advancing the NZDF’s scientific and technological edge, but also for ensuring that innovation is aligned with strategic priorities and delivers on-the-ground outcomes.

Dr Galligan joined DST as an Operations Analyst in 2002 and led DST’s Operations Analysis team from 2007 to 2020. He was promoted to Group Director for Electronic Warfare Systems at DST in 2020, and two years later he was

appointed as the agency’s Director.

Since taking over as Director, Dr Galligan has led a change programme aiming for clearer paths to impact for DST’s scientific portfolio, and emphasising increased partnering with the wider science and technology ecosystem, both locally and internationally. These changes were designed to ensure that DST can deliver the levels of S&T support required within what’s been widely characterised as an increasingly uncertain strategic environment.

In this interview, Dr Galligan outlines how DST is positioning the NZDF for that future.

ND: Drones and counter-drone technologies are evolving rapidly. What role does DST play in exploring these capabilities, and how do you ensure that insights from experimentation translate into deployable operational capability?

DG: DST has around a quarter of a century of experience with UAVs back to the Kahu drone. When I joined DST (DTA) in 2002, Kahu development was already well

underway, so you are looking at quite a bit of history there in terms of knowledge base.

Uncrewed and counter-drone systems are highlighted within the Defence Capability Plan and the Defence Industry Strategy. This provides a clear prioritisation signal for DST to support wider Defence to deliver on those systems.

DST has a strong focus on applied experimentation in realistic military environments. We endeavour to get out in the field with technology, such as uncrewed systems, as much as we can. Much of our S&T work is aimed primarily at experimenting at the technology prototype stages, but we work right through to production level technology in support of military capability integration objectives.

We are strongly dependent on our collaborations with local and international partners, and there’ are a number of industrial, academic, and science system partners within New Zealand and internationally that we work with closely.

Our uncrewed research areas include detection, tracking and interception concepts for countering

drones, navigation resilience, command and control integration and moving into mission level autonomy. We have a clear forward focus with our work, seeking to anticipate what the NZDF requires to succeed in contemporary and predicted realistic operating environments. In the case of navigation resilience, for example, this means being able to operate where GPS cannot be relied upon.

We work very closely with military stakeholders here and with our defence S&T partners overseas in order to experiment with technologies in realistic settings, and from that to directly shape capability requirements. Working on experimentation directly with stakeholders allows the development of new concepts and to co-determine capability gaps. Such close collaboration really helps when it comes to integrating a new technology.

The drone and counter drone space is evolving very quickly, as is being demonstrated in Ukraine. It is a very tight cycle. So, I wouldn't say when I talk about concept development prototypes that we're always working far off the edge in terms of what needs to be delivered quite soon. What we are doing is relevant for the medium to long term – but also for the relatively short term as well.

ND: I like your mention of the future being, perhaps, more imminent than we may have thought. In any organisation, particularly defence organisations there are institutional norms and so on. So how do you ensure that there does remain a strong appetite for innovation?

DG: One of the things we do is develop safe “sandbox” approaches for testing out innovation concepts, structured trials, analysis, and experimentation.

We show how new systems, whatever they might be, can actually work and need to work within operationally realistic, but carefully controlled environments.

As we see things shape up around the world, there's a real need to innovate, and keep up with the rate of change. Defence realises that, and the safe and definite process of testing new technology concepts that we provide is an essential one for the organisation.

You will have seen mention of the new Defence Technology Accelerator, which was announced by the minister last month. That, as it stands up, will become a focussed mechanism to engage innovative technologies from the local ecosystem into the NZDF sphere. I am really enthusiastic about this new entity and the role it will play. DST will be a key technical partner of the Accelerator.

Experimentation and trials enable the NZDF to better understand technological options and considerations before major commitments are made. This technical de-risking is particularly important when considering new technologies, especially those that are changing at a rapid rate and which the NZDF may have limited past experience with.

Our S&T experimentation work is often conducted with our international partners, including through “Five Eyes” arrangements, as well as locally. In this way, some of the work of interoperability and integration with military partners is already done – or at least prefaced – in the early stage. Within DST, we also have a “will do, will not do” set of boundaries, so that we don't spread ourselves too thinly trying to do every innovative thing that could be done. It's about looking at those areas that are most useful to the future of the NZDF and are not duplicative of what is being done elsewhere.

ND: You've mentioned drone and counter drone, a couple of times already. There are also other technologies out there that DST is researching and experimenting with and that defence forces are interested in. How does DST assess, prioritise, and select which initiatives to pursue?

DG: We constantly re-evaluate our priorities over time. Our priority foci ultimately derive from guidance such as in the Defence Capability Plan and the Defence Industry Strategy, and we look for opportunities within the ecosystem in New Zealand and internationally. Our Five Eyes and other international partnerships are a really good source of collaborative opportunity and inspiration, but we are always also mindful of our sovereign needs and limitations whenever we consider such engagements.

We have two main governance groups that ensure we remain aligned and engaged with the larger system. The Defence Science Steering Group is made up of “one-star” leaders from across the organisation. This group guides our S&T programmes, helping us to understand what the NZDF-wide research priorities and gaps are. Meanwhile, the Defence Science & Technology Advisory Board sits at the “two-star” level and it includes external members. That board covers the long-term direction of the NZDF's S&T capability, including how it engages with the wider science and technology ecosystem.

We anchor the work we are doing in a set of S&T research capabilities that we possess in the lab. We don't try to cover everything. We just can't. It's always going to be a prioritisation trade-off.

Around three years ago, for example, we ceased a long-standing set of platform sustainment activities. This included the likes of keeping the then ageing P3-K2 and



DARTE Partners (L-R) Pilot Iagho Amaral, RADM Garin Golding, Dawn Aerospace CEO Stefan Powell, RADM Mat Williams, Dr David Galligan. Image: Dawn Aerospace.

C130 airframes flying from an S&T point of view. We recognised there would be less need for such S&T inputs because of the introduction of new aircraft (P8-A and C130-J). We pivoted staff onto other activities, and that's obviously what any sensible organisation should do.

Uncrewed systems and counter drone are key areas of focus. A number of other areas also require growing emphasis, include research related to space and navigation warfare, electromagnetic warfare and underwater sensing. Meanwhile, Artificial Intelligence and Machine Learning pervades at least half of our research programmes. And, at the other end of the spectrum, we have a stack of 'watching briefs' for areas like materials science. Such areas are still important but are not so urgent and there may be other ways of achieving research outcomes when they arise. Our local and international partnerships play an important role in filling such internal gaps.

The new Defence Technology Accelerator will have a welcome place alongside DST in terms of helping cover priority technology requirements based particularly upon local ecosystem opportunity.

ND: How does DST monitor the commercial market and international defence community to identify whether there exist available solutions to emerging problems?

DG: We are constantly on the lookout with our international partners to understand the dynamic requirements of realistic military operating environments and the 'state of the art' to address those.

We act as a connector and sense maker across the wider ecosystem internationally, and we look – from a science and technology point of view – at not reinventing solutions that exist but rather integrating or enhancing them — advising Defence on what solutions are out there and where things are going. Locally, the new technology accelerator is going to play a key role in this as well.

For example, being involved in some of the major acquisition projects as we are, we may be able to see that a specific class of sensor is about to undergo massive transformation. If we are looking to procure new sensors for a platform, it may be that if we wait another year we will benefit from having access to the newer sensing technology. We can advise and support the

Defence team on how to stage their acquisition to get the best bang for buck at the right time.

We did this in the context of the Anzac frigate upgrade. There was a range of sensors and effectors that were part of the build of the system, and we were able to advise on what was available, what might be available, what was sufficient, and what was optimal, so the project team could understand what the best package of systems would be for that purchase.

Internationally, our priority defence S&T partnership is with Australia. This relationship is of growing importance to us. Locally, as the technology accelerator comes online, we will be working very closely with them too, to ensure we are delivering on combined purpose – not duplicating, but enhancing.

ND: The Defence Capability Plan and defence industry strategy include indicative funding of 100 to 300 million for the new tech accelerator. What is the current status of that program?

DG: Commencing with the pilot phase that begins in the new financial year, is an investment across four years

of \$16 million operating funding and \$1.5 million in capital, allocated for activities. That's a good start.

The Accelerator is expected to build over time, with a review of the pilot to be conducted after a year. Starting small and scaling up, we will learn from experience and gain feedback from others about what works.

We have talked to a number of similar accelerators around the world, and we are looking to hit the ground running with some initiatives. We are not looking to boil the ocean here, but rather do something tangible and keep moving things forward in a way that's credible.

It is going to be industry facing and it will build into the development pipeline to address NZDF and, where relevant, global military problems. It will have an NZDF-first mind set, but at the same time be mindful of what partners might be interested in overseas as well.

ND: what do you mean by "industry facing"?

DG: We will see how this plays out as the accelerator comes into operation but there is certainly an intention that it will maintain a habitual awareness of local industry opportunities including through direct engagement.

While we wait for the formal start of the Defence Technology Accelerator I would point out that the NZDF has already been conducting some really effective technology acceleration with industry such as the DARTE experiment [discussed below]. This benefited from close engagement with industry partners, and I expect this kind of example to be enhanced by the Defence Technology Accelerator commencing operation.

ND: Which delivered operational capabilities has DST had the greatest impact on, and which are you most proud of?



Dr Galligan with DST supported team from the Wireless Research Centre at the University of Canterbury. Image: LinkedIn.

DG: In the acquisition and operational delivery space, I've mentioned the Anzac frigate upgrade. We were highly involved with that, and specifically in terms of assessing the best mix of systems to meet the requirements. We were involved right from the start of the process of understanding how we might use the frigate at various stages in the future. We provided advice on practical integration considerations to optimise overall system performance, and we are now involved in supporting the continuing performance level of the systems, for example, underpinning the Sea Ceptor firings in 2023.

We helped set up the optimal plan for the execution and analysis of those firings, and we've had a habitual role within the combat mission support side of things, including supporting encoding tactical responses in the combat management system.

DST orchestrated the Dawn Aerospace Radar Tracking Experiment (DARTE) in Canterbury, which involved flying a Dawn Aerospace plane from

the Tāwhaki National Aerospace Centre against an RNZN frigate as a tracking target. This is an example of the NZDF developing our local advanced technologies ecosystem to support an important defence use case. It stands as a clear example of the NZDF delivering on the intent of the Defence Industry Strategy.

We have the DST-built payloads, Korimako and Tūi, on orbit, supporting our space operations research and development. This internationally partnered work develops our understanding in a research context, which can be called upon to support any future policy or capability considerations.

Through research and development, we've also developed an electro-optic solution for space domain awareness, and we have now partnered with 62 Squadron to transition that technology into an operating capability. This is a really good example of pulling together the scientific nous, the expertise, and the operators, and developing something that's top notch pretty much from scratch.



DST researchers deploy a wave buoy from the back of a research vessel during experiments in Omaha Bay. Image: NZDF.

ND: Obviously, we've only had a ministerial portfolio for space for the last couple of years. For DST, is space a recent thing or is it something that perhaps goes back further?

DG: It goes back further. We set up an effective space research programme some time ago. It was an early foray for an NZDF that was then still developing its position on space. We pushed ahead, working with international partners, we developed our research space payloads and our space domain awareness telescope system.

It is worth noting that our research will not always lead to a transition to capability. We need to balance such path finding missions with the fact that sometimes things will get to a conclusion, but not capability. We need to be brave enough and ready enough to close out research activities at the right time. Our future-focussed development programmes require strong and disciplined prioritisation to achieve this.

ND: You've led a change programme at DST aimed at a greater focus on

impact for DST's scientific portfolio. How do you measure the success of DST in this regard?

DG: Success is not measured by quantity, first of all. It is measured by what Defence outcomes we can achieve. It is worth noting that a valid outcome can be to explore a new area and to determine that that area is not worth pursuing further. Our change programme has been seeking to develop more focus and clarity in what will and what won't be pursued and to take timely actions in support of that.

We are looking at where we can deliver timely and decision-quality evidence, supporting DCP priorities, and ultimately where we can reduce integration and operational risk, and risk in general. The DST uplift that is indicated in the DCP, when it comes through, will aim to support that, by investing more in our priority science capability areas and the partnerships that are relevant to those. More funding doesn't mean that we don't need to prioritise. Quite the opposite. We will seek to be ever more disciplined with our internal

resourcing allocations so that we can adequately cover the most pressing S&T requirements for the NZDF.

ND: What is your advice to New Zealand industry innovators looking for opportunities to contribute to the emerging text supply chain in the national interest?

DG: Make sure they are looking to develop Defence relevant outcomes. They need to understand that we are not interested in just another interesting technology project. We are interested in specific outcomes. So, thinking about how can they address Defence's specific requirements is key.

Align with defence priorities. You've got signals, clear signals from the DCP, the Defence Industry Strategy, and from DST's research portfolio foci. We recently held a research forum at Devonport Naval Base with a range of academic leaders present. We provided them "lightning" briefs on what our S&T research programmes do and need in the future – an example of DST sharing our priorities so that they can choose how they align. For industry, there are the various workshops that have been held post DCP, there are continued areas of interest to DST and the new Defence Technology Accelerator will be promoting its priorities as its operations commence.

It is important to engage through the mechanisms that we define, rather than expecting bespoke pathways. We will be wanting people to stay on the routes that we have outlined rather than try and come in from all sorts of different directions. We need to be disciplined on both sides.

Those who understand Defence's needs, are prepared to collaborate, and can contribute deployable outcomes, will find there is genuine opportunity contribute to New Zealand's national interests.

Enough Tinkering: Make drones the main effort

The question is no longer whether drones will shape future conflict. The question is whether New Zealand intends to participate in that future – or be left behind, writes former New Zealand Army officer Graeme Doull.



Graeme Doull is a logistics management specialist. He was previously a New Zealand Army Armoured Corps officer and saw operational deployment to Bougainville and with INTERFET to East Timor.

Drones are no longer a theoretical capability - they are reshaping warfare on land, at sea and in the air. No technology in the last half-century has altered modern conflict more radically.

In Ukraine, drones account for up to 80% of battlefield casualties, while in the current US-Israel-Iran conflict thousands of armed drones are being launched by all sides. New Zealand must recognise that the world is becoming more dangerous and that, despite our remoteness, we no longer operate in a benign environment.

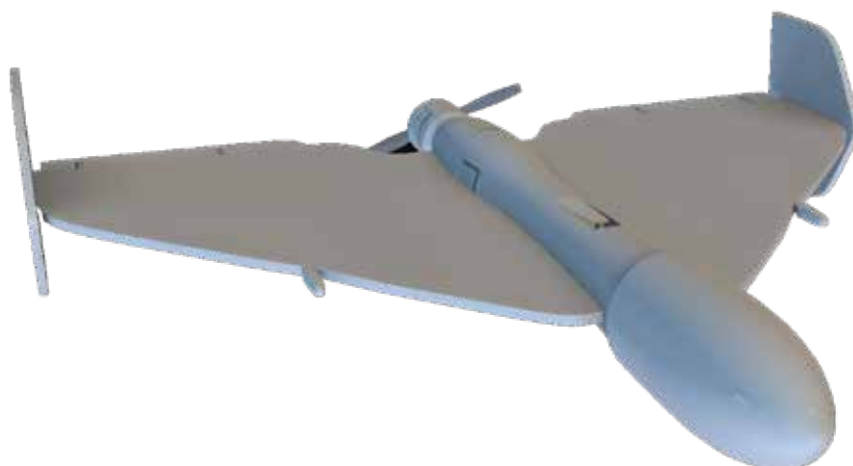
The [recently announced SYOS drone partnership](#) is encouraging, but this [\\$1.5m commitment](#) pales in comparison with \$700 million spent on a pair of civilian airliners and \$2 billion for five naval helicopters – investments in imported platforms to replace existing systems, rather than building new capabilities for the modern battlefield.

The scale of this collaboration is simply insufficient compared to the size of the opportunity - it lacks both breadth and volume. It only engages a single drone supplier, and many key segments of the unmanned ecosystem aren't in scope.

The deal offers no solution for fixed-wing surveillance (such as [Baykar Bayraktar TB2](#) - although the [persistent surveillance tender](#) may address this), no low cost long range strike (like the [Shahed 136](#) or its [US clone](#)), no subsurface platforms (like [Anduril's Ghost Shark](#)), and, critically, it does not provide for the relatively unsophisticated low-cost systems capable of being fielded in massive volumes, such as those used on Ukraine's front line.

Counter drone solutions

An alarming gap in counter-drone capability also remains unaddressed. Drones are increasingly accessible to a wide range of threat groups – from





individuals who could conduct a ‘lone wolf’ strike, to terrorist groups capable of causing disproportionate chaos by attacking civilians – or targeted attacks on infrastructure, and ultimately to hostile nation states.

These threats pose a significant risk to New Zealand, where critical infrastructure and major public events currently lack effective counter-drone protection. Basic off-the-shelf drones equipped with explosives could cripple ports, airports, the power grid, or be used for attacks on civilians that would severely damage New Zealand’s reputation as a safe destination.

During the Second World War, New Zealand was never directly invaded, but it was not untouched. German forces [mined the approaches](#) to the Hauraki Gulf and raiders sank ships in New Zealand waters, targeting economic lifelines rather than territory. In a future regional or global conflict, New Zealand would likely face the modern equivalent - attacks designed to disrupt the economy rather than invade.

A long-range one-way attack drone, such as a Shahed-136, striking the Wiri Fuel Terminal could be launched from well beyond New Zealand’s defensive reach - from parts of the South Pacific such as Fiji, New Caledonia, or Tonga -

using offshore or covertly deployed platforms. An attack of this kind would cause severe economic disruption, and even with warning, current capabilities would offer no meaningful options for interception.

In addition to defending against domestic threats, the NZDF also requires defensive systems to protect personnel deployed on peacekeeping operations and in high-intensity conventional warfare. The battlefield is changing faster than the NZDF is responding – this is not a future problem – it is a current strategic deficit.

Defence Science and Technology - A combat multiplier

New technologies demand close cooperation between scientists, industry, and operational units. Defence Science and Technology (DST) should be a powerful combat multiplier for the NZDF – the bridge between innovation and the battlefield.

Testing and trialling alongside military units and industry partners, DST scientists should help iterate techniques, technologies, and tactics in realistic conditions. Fighting both sides of the drone battle. Learning. Breaking things.

Given their importance to modern warfare, drones should dominate DST’s programme of work

and demand the attention of military leaders at all levels. For a small force such as the NZDF – limited in scale and operating under persistent fiscal constraint – drones represent a disproportionately important opportunity.

Yet drones do not appear to be the main effort within DST’s programme of work, with only [9% of spending](#) and no clear direction to prioritise drone-related research ahead of other projects.

The current DST portfolio lacks the hard-edged discipline required for a small military. It reads less like a strategic roadmap and more like a collection of legacy academic interests, drifting far from the realities of the modern battlefield. We are currently burning intellectual capital on projects of marginal strategic value – either attempting to reinvent systems already proven elsewhere or chasing high-end research better suited to superpowers with deep industrial pockets.

A number of existing DST projects seem to be based around procurement or sustainment of platforms. For mature systems [we should rely on Australia](#) to lead procurement and resolution of any problems that may occur. This would not only enhance interoperability but also free up DST capacity.



Ghost Shark Factory Opening in Sydney, October 2025. Image: Anduril

Likewise, there appear to be a number of projects focused on sea conditions, climate, and weather. The government [merged GNS and NIWA](#) to reduce duplication - it would make sense for DST climate and weather scientists to also be folded into the newly formed Earth Sciences New Zealand. This would allow DST to concentrate on science that directly supports warfighting.

To be effective, DST must move from being a research portfolio manager to being a capability accelerator, working with industry, with clearly defined priorities set by defence leaders.

Defining main effort

In military doctrine, a “main effort” is not simply something important. It is the activity to which disproportionate attention, resources and intellectual energy are directed in order to achieve decisive effect. It requires accepting risk elsewhere. It requires stopping worthy but secondary work.

You cannot have multiple main efforts. If everything is treated as equally important, nothing is prioritised.

Applying a main effort mindset requires discipline. DST needs more money and people working on drones, working within a constrained budget and these resources will need to come from other projects. The hardest decision in any institution is often deciding what to stop doing. If drones are defined as the main effort, leaders must accept that other programmes slow down, shrink, or stop. That is what prioritisation really means – deciding what to sacrifice so higher priorities can thrive.

The opportunities for research into unmanned systems are almost overwhelming. How should the Army deploy massed, low-cost drones in the land domain to create surveillance webs, and use them to drop bombs and conduct kamikaze strikes? Working in the maritime environment how do you extend surveillance and strike - coordinating long-range aerial systems teaming with surface and subsurface unmanned platforms? In the air and strategic domain, how can you improve long-range drone survivability, and what are the high-speed and high-capacity strike options?

For every option, there must also be iteration on how the drone and counter-drone battle will evolve. Working with military units and industry, DST should be examining the first- and second-order effects of that contest, and the implications for both offensive and defensive capabilities.

Developing operational capabilities

The drone revolution is as much about the economics of war as the technical development. It's about volume and effect – at a low cost. New Zealand needs to work out what classes of systems offer compelling capabilities in the Pacific theatre and how local industry can mass produce them.

At this stage, familiarity with drone systems is more important than mastery of a specific platform. Personnel will be able to adapt to new systems as technology evolves, but the tactics and techniques will take longer to embed.

Capability development must be driven by a focus on getting tools into the hands of soldiers, sailors and aviators. It is not about achieving a perfect solution. It is about rapidly



fielding the ‘good enough’ solutions that are affordable enough to allow adoption at scale both for drone and counter-drone solutions.

Adoption is everything. If systems aren’t being widely and actively used by service personnel, there is no real capability development – you are just dabbling with drones. Nowhere is this more urgent than in counter-drone warfare. In order to develop meaningful drone literacy, learning to fight these systems is critical.

Waiting for a perfect future platform is not prudent – it is arrogant and misguided, and it robs personnel of the time they need to build the skills that will actually matter.

New Zealand cannot compete with volumes of conventional forces. Our limited industrial base means we cannot expect to develop or manufacture armoured vehicles, ships or aircraft at meaningful mass. Our advantage must come from agility, leadership and the speed with which we translate innovation into operational capability.

The future of New Zealand’s defence forces

Drone and counter-drone systems represent the single greatest opportunity – and threat – facing the NZDF. Without a heavy industrial base, they are an ideal sector in which to develop sovereign capability, requiring creativity, high-technology engineering, and cost discipline – areas in which Kiwis traditionally excel.

For New Zealand, sovereign capability is not just an economic opportunity – it is a matter of logistical security. In a disrupted or contested environment, reliance on offshore supply chains may not be viable.

The question is no longer whether drones will shape future conflict. The question is whether New Zealand intends to participate in that future – or be left behind. If the NZDF enters a future conflict without credible drone and counter-drone capability, it will not be because the technology

was unavailable – it will be because leaders failed to act. Senior officers, NZDF leaders, and Ministry officials must choose to increase the focus on drones. Failure to do so would not be a technical oversight, but a failure of leadership and [strategic-orientated thinking](#).

If New Zealand is serious about building a modern warfighting capability using the newly committed \$12 billion in defence spending, drones must take a significant share. The NZDF must drive domestic investment, not just [issue RFIs](#) to survey the market. Defence needs to act – leading procurement innovation rather than passively testing industry. Investment only works when made ahead of need; once a crisis hits, it is too late to start developing new capability.

For the NZDF to remain relevant in modern conflict, the priority is unmistakable: drones must be the main effort in technology and capability development.

Four Steps to Make Drones the Main Effort

1. Commit Meaningful Funding: Direct at least 10% of the new \$12 billion defence investment toward domestic drone and counter-drone systems.
2. Reprioritise DST: Explicitly pivot DST’s mandate. Funding and talent must be stripped from legacy sustainment projects and climate research to focus on unmanned systems.
3. Field at Scale, Fast: NZDF must rapidly deploy low-cost drones, and counter drone systems, at scale within operational units to build drone literacy.
4. Foster Sovereign Capability: Expand investment with a breadth of NZ-based companies. We must build the ecosystem here so we aren’t waiting in a global queue when the next crisis hits.

Defence Industry awards recognise innovation and impact

Defence Minister Chris Penk has paid tribute to businesses supplying the New Zealand Defence Force at the 2025 Minister of Defence Awards of Excellence to Industry.

On 12 May, New Zealand Defence Minister Chris Penk announced the winners of the 2025 Minister of Defence Awards of Excellence to Industry at Parliament, recognising nine recipients and eight finalists for exceptional service, high-quality equipment, and innovation.

“This year’s award recipients have delivered high-quality equipment, assets, infrastructure and services that are fundamental to the successful operations of the New Zealand Defence Force and the Ministry of Defence,” Mr Penk says.

“In an increasingly complex and challenging world, Defence relies on strong partnerships with innovative and capable New Zealand businesses.

“More than 800 suppliers provide essential goods and services to Defence across New Zealand. Their contribution boosts supply chain resilience and ensures Defence is always ready to respond in times of trouble.”

Among the nine award winners this year were a construction firm that built the Maintenance Support Facility at Burnham Military Camp and a company that designed and manufactured new physical training and combat socks.

“This year’s award recipients employ New Zealanders, grow specialist skills, drive regional growth, and boost our exports. Their impact is significant,” Mr Penk says.

“Defence spending is an important driver of innovation

and opportunity across multiple sectors. A strong local defence industry will support the delivery of the 2025 Defence Capability Plan (DCP), which outlines planned commitments to double defence spending over eight years.”

At the awards, the minister has also announced the reinvigoration of the Defence Industry Advisory Council, which administers the Minister of Defence Awards of Excellence to Industry.

Category Award Winners

Category A - Prime Contractor of the Year
Leighs Construction Limited

Leighs Construction were the Prime

contractor for the Maintenance Support Facility at Burnham Military Camp, which was built as part of the NZDF’s Consolidated Logistics Programme. The project was delivered under budget and early, with Leighs’ problem solving and innovative thinking helping to provide efficient and effective solutions.

A trusted partner, the company managed up to 18 local subcontractors safely and securely, and worked well with the Base’s operations staff and other construction project managers to keep disruption to a minimum. The project provided significant regional economic benefit through Leighs and their large number of sub-contractors throughout the build.





Category B - Sub-contractor/Small to Medium Enterprise (SME) of the Year - Product Norsewear

Norsewear supply the NZDF's physical training and combat socks. A well-known local New Zealand business, Norsewear identified an opportunity to work with the NZDF to reengineer these socks.

User testing helped deliver an improved design trialled by over 500 people across a range of environments and put through extreme use durability testing. Design of the combat socks also involved over 1,600 lines of code written to ensure production machines accurately followed designs.

These combat socks are a bespoke design built around and for New Zealand military people. They worked closely with Defence to continue to forecast demand to ensure the local, traceable material is available for the following year.

Norsewear took on risk by expanding production and heavily invested in product technology – sourcing quality raw material and adapting the manufacture and production process – to arrive at the final combat sock solution. As

a local business with 23 employees, they have continued to grow and ensure they can provide a responsive service to NZDF via the prime clothing supplier, Australian Defence Apparel (ADA), who made the nomination.

Category C - Sub-contractor/SME of the Year - Service Marine Industrial Design

Marine Industrial Design provides naval architecture and technical advisory services for Royal New Zealand Navy ships.

Marine Industrial Design made themselves immediately available to help efforts to save HMNZS Manawanui following its grounding off Samoa, including surging a team to gather, analyse, and provide drawing and design information to understand the implications of damage to the ship.

A secondary response was support for salvage operations, including detailed drawings and design plans around how best to access items to be recovered, immediate activity to minimise further environmental impacts from loss of fluids, and then to guide salvors in accessing multiple tanks to remove diesel fuel, oils, and other fluids.

High precision was required to penetrate tanks in the right place, and the company had highly detailed plans of the ship. They downscaled other projects and activities to prioritise supporting OP RESOLUTION, working daily with salvors and others to ensure accurate locations to penetrate tanks occurred, building a 3D digital model for accurate and clear information about the vessel to support media briefings and updates for the Samoan Government.

Special Award Winners

Tū Kaha – Courage
William (Tom) Te Weehi –
Isaac Construction Limited

The Burnham Infrastructure Programme was funded to update horizontal infrastructure including potable water, wastewater, electrical, and other services across two tranches of work. When site-wide work is underway, disruption to base operations are unavoidable - with main lines and laterals for water services exposed.

As Communications Manager for Issac Construction Ltd Mr Te Weehi showed his adaptability and generous nature by supporting many tasks and functions. From security management for the many subcontractors involved in this programme of work, to additional roles he took on as the Health and Safety Officer, and the Unit Security Officer.

Mr Te Weehi is former Navy and understands the way military bases operate. He became heavily involved in the planning of work packages to improve coordination and minimise disruption. Working with all stakeholders, he is considered to have been critical to progressing much of this horizontal infrastructure work.



Tū Tika – Commitment Nick Ferdinando – Strategic Sourcing Consulting Limited

Providing the engineering support for the Operational and Regulatory Aviation Compliance Sustainment (ORACS) project [link to project page], Mr Ferdinando has provided continuity of knowledge during his tenure with the Air Force, as an independent contractor based in France, and then as a consultant through SSCL supporting the embodiment of software release 2 for the upgrade of the NH90 helicopter fleet.

Mr Ferdinando has delivered a huge amount for this project, showing dedication, work ethic and commitment. He worked long hours outside of normal operating hours due to time zone differences and, as a trusted and respected representative, could operate on behalf of the various interests within New Zealand.

Tū Tira – Comradeship Matthew Rolston – Dynasty Sport

Over many years, Dynasty Sport has been the provider of sports kits for Defence's Invictus Games and several sports teams. Mr Rolston has been an avid supporter of the Games and ensured the NZDF athletes had a custom sports kit at no cost, and friends and supporters had discounted kit available.

A compassionate and collaborative supporter, Mr Rolston has demonstrated an overwhelming passion for this hugely important work. During the Pacific Nations event (2023 Pacific Games), Mr Rolston also ensured several other countries were able to participate in full and new kit at a heavily discounted price.

He has worked closely with Defence to ensure its needs have been met, such as the design of bespoke ski suits adapted from the Canadian ski suits for the Skeleton event

that was introduced at the Invictus Games Vancouver Whistler 2025. All of this has been voluntary and at no personal or financial gain.

Kotahitanga – Unity Steve Smith – SS Construction Limited

Within the Waiohuru precinct Mr Smith leads a team of staff that supports infrastructure repairs. Always readily available, and someone who gives freely of his knowledge and wisdom, Mr Smith provides building and repair work quickly and efficiently.

His work is meaningful, invaluable, and respectful. He genuinely cares about the outcomes and always operates professionally. With experience in working for Spotless and Downer, Mr Smith is prominent in the local community and like family amongst the Waiohuru Base.

Auahatanga – Innovation Lance Bauerfeind – Company-X

As lead contractor behind one of three VR and augmented reality training simulation providers under the Technology Enhanced Learning Environment (TELE) programme, Mr Bauerfeind assisted Navy with a training module for diving drills.

The existing training approach was conducted practically in swimming pools and observed by an instructor poolside. Mr Bauerfeind led the development of a virtual reality training module for descent into a virtual ocean and the conduct of rescue scenarios on a casualty.

His innovation was around the introduction of multi-player technology that enables the instructor, and training classmates, to enter the simulation and provide direct instruction within the training module. This solution has enabled a much more accessible training module, higher levels of

instruction and, even without Wi-Fi, can be transported and set up at different locations.

Mr Bauerfeind has not only changed the means by which diver training is provided, he has been instrumental in helping to shift the culture and mindset of virtual training solutions.

Finalists for Prime Contractor of the Year

Pacific 7 & Bay Underwater Services Ltd

As part of Op RESOLUTION, Pacific 7 & Bay Underwater Services were contracted to undertake the safe removal, recovery and disposal of diesel oil and other potential contaminants from HMNZS Manawanui.

The magnitude and complexity of the salvage task, coupled with environmental challenges saw the team take innovative and collaborative approaches with Navy and other parties.

Known for salvage and diving capabilities through operations around New Zealand and the South West Pacific (including MV Rena), activity centred around environmental protection and required the safe removal of over 300,000 litres of fuel and oils into a barge that had to be moored in such a way to minimise damage to the reef on which Manawanui foundered.

Alongside Marine Industrial Design (winners of the 2025 Sub-contractor or SME of the Year - Service), they accurately penetrated the hull and internal tanks to safely remove all petrochemicals without leakage or Health and Safety incidents.

Rheinmetall MAN Military Vehicles Australia Pty Ltd

The NZDF's fleet of 114 MAN HX60 Medium Heavy Operational



Vehicles (MHOV) came standard with a 750mm fording ability, however it quickly became apparent that a greater fording depth was required to meet operational requirements, especially when deploying amphibiously from HMNZS Canterbury or supporting local flood relief support. A project investigated cost effective ways of increasing the vehicles' fording depth.

The company worked with its global organisation to engineer the best available and affordable solution, coming up with a solution that achieved a fording depth of 1,200mm. It developed a demonstration vehicle with local companies as a proof of concept before the solution was approved for installation across the fleet.

Using the local network setup to support maintenance, an affordable and innovative solution was implemented ahead of schedule, delivering economic benefits coordinating work across the large and widely dispersed MHOV fleet and providing quality assurance of the work done.

Finalists for 2025 Sub-contractor or SME - Product

Marops

Marops was nominated for services for the C-130J-30 Hercules fleet's capability, including sensor integration, systems testing, a Search and Rescue (SAR) training package and standard operating procedures. Adaption of their Wide Eye technology integration onto the C130J as part of the capability enhancements they supported has created export potential to other air forces.

Their work has enabled New Zealand to be the first military to use the C-130J fleet for SAR operations. The training package they developed has been used to train Maritime New Zealand personnel in SAR principles.

Marops also helped set up a New Zealand-based range, using Australian Defence Force (ADF) equipment, to test the aircraft self-defence capability in country – rather than using offshore facilities, saving money.

PwC New Zealand

The Royal New Zealand Navy engaged PwC to design, build and embed a strategic workforce planning capability across 2023 to 2025. With a significant naval regeneration underway, PwC was contracted to develop a dynamic supply tool that could gather information around aspects such as attrition and training lead times to help improve forecasting of future personnel requirements.

As many roles in Navy cannot be acquired directly from the market, this work factored in lead times and subordinate levels required to sustain personnel in certain trades. The tool was developed to gather information about workforce demands and requirements and enable modelling against potential future force structures.

Finalists for 2025 Sub-contractor or SME - Service

New Zealand Diving and Salvage Limited

New Zealand Diving and Salvage was engaged through prime contractor Beca to provide underwater services at the Royal New Zealand Navy's Devonport Naval Base. This included dredging, inspections, and repair of core infrastructure.

An issue with the drydock sluice gate was identified as a potential risk to the facility's operation. The company's responded quickly, identified and sourced an interim solution and followed this with a permanent repair – with installation of a 1.5 tonne plate installed over the damaged area two metres below sea level.

Pet Transport

Military working dogs are often transported around New Zealand and deployed around the world to support several operations. Military working dogs have travelled to the Pacific Games in the Solomons, and with Exercise Talisman Sabre.

As live animals, navigating import and export rules of different countries can be complex and extensive, spanning biosecurity, welfare, export, and customs legislation and rules. Inadequate planning or attention to detail could result in dogs being quarantined or possibly destroyed.

Pet Transport drew on an overseas initiative to introduce a dog passport. As regulations have specific requirements around the data required and how it is presented, the standardised dog passports ensure every military working dog has the necessary information in one location.

New NZDF dog handlers are briefed on the aspects associated with transporting dogs domestically and particularly to foreign countries, and Pet Transport provides immediate assistance when needed to support the safe and efficient movement of military working dogs.

Finalists - 2025 Special Awards, Tū Tika – Commitment

Colleen Plummer of Babcock New Zealand in recognition of her significant contribution to strengthening health, safety, and environmental practices during complex ship maintenance activities, particularly for HMNZS Te Mana and HMNZS Te Kaha.

Gram Schweikert of Marine Industrial Design (MID) in recognition of his leadership and trusted problem-solving in delivering a safe and innovative interim repair solution that enabled HMNZS Aotearoa to deploy to Singapore for critical maintenance.

Defence and Industry: Building capability through partnership

According to the New Zealand Defence Industry Association (NZDIA) Board, a resilient defence ecosystem requires a balanced approach that combines sovereign capability, international partnerships, innovation, and operational relevance.

As *Line of Defence* marks its 10th anniversary, it is worth reflecting not only on how far the defence and security conversation has evolved in New Zealand, but also on how much the global strategic environment has changed.

The pace of technological development, the complexity of modern conflict, and the lessons emerging from current global events are reshaping how nations think about capability, resilience, and preparedness.

A decade ago, defence capability discussions were often centred on long-term platforms, deliberate acquisition cycles, and relatively stable strategic assumptions. Today, the environment is far more dynamic. Capability is increasingly defined not only by what is acquired, but by how quickly systems can be integrated, adapted, and operationalised.

The war in Ukraine has highlighted this reality starkly. One of the clearest lessons has been the ability of smaller nations to rapidly adopt and adapt emerging technologies, particularly uncrewed and autonomous systems, through close collaboration between Defence, industry, and innovators, often at great speed.

For countries such as New Zealand, those lessons matter. With limited resources, we need to be punching above our weight and making smart, agile decisions about capability.



Encouragingly, there is growing recognition here that future capability development must place greater emphasis on agility, experimentation, resilience, and partnership.

With the Government's *Defence Capability Plan 2025* committing approximately \$12 billion of investment over the next four years, including around \$9 billion in new spending, New Zealand is entering one of the most significant periods of defence capability investment in decades.

This plan, the accompanying *Industry Engagement Statement*, and the recently released *Strategic Industrial Base Statement* collectively represent an important and positive step forward in that regard.

Together, they provide not only strategic direction and investment

intent, but also a clear signal that Government and Defence see value in deeper engagement with New Zealand industry, innovation ecosystems, and sovereign capability development.

The NZDIA has long served as a principal conduit between industry, the New Zealand Defence Force, and the Ministry of Defence. Founded in 1993, the NZDIA has, for more than three decades, helped connect industry with the New Zealand Defence Force and the Ministry of Defence.

Established during a period when New Zealand was seeking to grow local participation in major defence programmes such as the ANZAC frigate project, the NZDIA evolved from earlier initiatives including the Defence Technologies Joint Action Group (DTJAG). Since then, our organisation has grown



exponentially, now numbering almost 200 companies, located across New Zealand and internationally.

Today, we represent a diverse membership ranging from small and medium-sized enterprises through to major international primes, spanning defence, security, cybersecurity, advanced manufacturing, autonomous systems, and emerging technologies.

Beyond advocacy, the Association plays a practical and pivotal role in connecting industry and government, supporting procurement engagement, fostering innovation, and creating opportunities for collaboration through conferences, workshops, demonstrations, and strategic engagement events. As New Zealand's strategic environment continues to evolve, NZDIA's role as a trusted and constructive bridge between Defence and industry has become more important than ever.

A shared opportunity

Modern defence capability is no longer built solely through traditional procurement models. Increasingly, it depends on connected ecosystems involving Defence, industry, academia, innovators, and international partners working together to solve operational problems quickly and effectively.

Importantly, there is growing evidence that this collaborative approach is gaining momentum in New Zealand.

The Strategic Industrial Base Statement for Uncrewed Systems and Uncrewed Counter Systems highlights the importance of:

- resilient supply chains
- modular and open architectures
- rapid experimentation
- early engagement with industry
- iterative development
- and accelerated pathways from concept to operational capability.

These are important shifts in emphasis.

They recognise that technology cycles now move faster than traditional acquisition models were originally designed to accommodate, particularly in areas such as autonomy, robotics, sensors, electronic warfare, data fusion, and counter-uncrewed capability.

At the same time, the statement also reflects confidence in New Zealand industry's ability to contribute meaningfully to these challenges.

That confidence is justified.

Across a range of sectors, New Zealand companies are already delivering advanced technologies and operational capability to domestic agencies, international partners, and Five Eyes customers. In many cases, these are not theoretical or developmental concepts, but proven systems, services, and technologies being used in demanding operational environments.

New Zealand's defence industry may be relatively small by international standards, but it is increasingly agile, innovative, and globally connected.

Building a more connected defence ecosystem

The opportunity now is to continue strengthening the connections between Defence and industry in practical and meaningful ways.

Importantly, the Defence Capability Plan also introduces concepts such as "Thin Primes", intended to encourage more agile delivery models and create greater opportunities for New Zealand small and medium-sized enterprises to participate meaningfully in capability delivery and sustainment.

Coupled with the growing emphasis on New Zealand Industry Capability Plans and the Government Procurement Rules, there is now a genuine opportunity to operationalise industrial participation expectations in a way that supports the development

of sovereign capability, local innovation, and long-term industry growth.

This is where the NZDIA has an important role to play.

The NZDIA exists to help connect capability, operational need, innovation, and decision-makers across the broader defence and security ecosystem. Its role is not simply advocacy, but facilitation, helping create the conditions for collaboration, understanding, and practical delivery.

Recent initiatives have demonstrated the value of that approach.

Events such as the Uncrewed Systems Day, held in partnership with industry and attended by senior Defence and Government representatives, provided an opportunity for emerging technologies to be seen, discussed, and evaluated directly by operators and decision-makers in a practical environment.

Similarly, our annual Space Technology & Innovation events have focused on not only highlighting New Zealand's capabilities in this developing sector, but also encouraging engagement and collaboration between the government agencies, industry and academia.

These NZDIA-led events are well known for bringing together the New Zealand innovators and technology providers, encouraging extensive networking and enabling further development.

These engagements matter because they move conversations beyond theory and into real-world understanding.

Equally important is the work currently underway to develop a more comprehensive understanding of New Zealand's sovereign industrial capability.

The creation of a "single source of truth" around New Zealand capability across uncrewed systems,

counter-uncrewed systems, sensors, autonomy, integration, and enabling technologies has the potential to significantly improve visibility and understanding across the sector. For the first time, Defence and government agencies will be able to better understand the depth, breadth, and maturity of capability already present within New Zealand industry.

That benefits both Defence and industry by creating greater awareness of the capabilities, expertise, and innovation already present within New Zealand. For industry, it creates clearer pathways for engagement and collaboration.

Most importantly, it helps reduce friction, improve understanding, and support faster, better-informed decision-making.

Accelerating innovation through partnership

One of the most encouraging developments in recent months has been the growing focus on experimentation, innovation, and accelerated capability development.

Mechanisms such as the Government's new Technology Accelerator provide exciting opportunities for Defence, industry, researchers, and innovators to work together more closely to test ideas, reduce risk, and rapidly explore emerging technologies.

This reflects an increasingly practical understanding that innovation rarely occurs in isolation.

The best outcomes are often achieved when operators, engineers, researchers, and industry partners work together early in the process, iterating and refining capability through experimentation and operational feedback.

New Zealand is well positioned to embrace this model.

Our scale, agility, and close relationships across sectors can be genuine advantages. We have the ability to bring together decision-

makers, operators, and innovators quickly and pragmatically in ways that larger countries sometimes struggle to achieve.

That creates opportunities not only to strengthen domestic capability, but also to contribute meaningfully to allied partnerships and international supply chains.

Importantly, the Strategic Industrial Base Statement also recognises that sovereign capability does not necessarily mean building every platform entirely within New Zealand.

Rather, it means understanding where New Zealand can add the greatest value, whether through sustainment, integration, payloads, sensors, command and control systems, advanced manufacturing, software, or operational innovation, while working alongside trusted international partners.

That is a pragmatic and mature approach.

Building resilience for the future

Resilience is now becoming a central consideration in defence capability planning worldwide.

Recent global events have demonstrated the importance of secure supply chains, trusted partnerships, diversified suppliers, and the ability to adapt quickly when circumstances change.

New Zealand is not immune from those pressures.

Building a resilient defence ecosystem therefore requires a balanced approach that combines sovereign capability, international partnerships, innovation, and operational relevance.

The Strategic Industrial Base Statement, the Defence Capability Plan, and the Industry Engagement Statement collectively provide a strong foundation for that future direction.

The opportunity now is to continue building on that momentum through practical

collaboration and a shared focus on outcomes.

Looking ahead

The next decade presents a significant opportunity for New Zealand.

Defence, Government, and industry are increasingly aligned around a common objective: delivering modern, relevant capability that strengthens national resilience and focuses support on those who serve.

The foundations are now being put in place. The challenge, and the opportunity, is to continue building trusted partnerships, embracing innovation, and turning strategic intent into practical operational outcomes.

The NZDIA can help facilitate those connections, support engagement, and ensure that collaboration between Defence and industry remains constructive, informed, and effective.

If New Zealand continues on this path, it has the opportunity not only to strengthen its own defence capability, but also to grow a resilient, innovative, and internationally connected defence industry sector that contributes meaningfully to both national security and economic growth.

The momentum is building.

The NZDIA is leaning in and stands ready to support constructive collaboration between Government, NZDF, MoD, academia, and industry. Our shared objective is straightforward: to help deliver practical capability that improves resilience, strengthens national security, and better supports the men and women who serve.

By continuing to work together, New Zealand has the opportunity to build not only a more capable and resilient defence force, but also a stronger and more internationally connected defence industry sector that contributes meaningfully to both security and economic growth.



Refusing to Adapt: The frigate fallacy

As the nature of warfare transforms, replacing New Zealand's frigates shouldn't necessarily equate to acquiring replacement frigates, writes Marc Parsons.

Recent maritime talk once again echoes the similar talk of the 1980s – What frigate shall we buy next? New Zealand needs to work in with our allies fleets and operations. We need to be interoperable with Australia. Yes, we still need anti-submarine capabilities and the ability to support island littoral land forces with fire support.

It's understandable to look at these defence needs and be forgiven for thinking "we'll just buy some replacement frigates".

New Zealand's 'two-frigate' capability has major issues. With the fifth largest maritime Exclusive Economic Zone (EEZ) in the world, New Zealand hasn't quite been able to conduct surveillance and protection adequately. We've had too few assets to cover the vast space, and too few to maintain capability at sea.

Our frigates tied up huge capital and maritime personnel in two 'exquisite' platforms, often with

one or both tied up alongside for maintenance.

We treated this problem of insufficient mass with additional Offshore Patrol Vessels and In-shore Patrol Vessels as a stop gap, only to sell some of these as we could not fill the onboard roles. When both frigates were laid up at the same time, we effectively had no operable combat assets for the billions spent.

It's not 1980 anymore. The decision almost 40 years ago to purchase the two current frigates was based on a benign peacetime collaborative approach where we contributed frigates to defend an allied carrier – playing our part in a 1940s operating model.

Yet, the nature of air, land and sea warfare has irrevocably changed. There's an arms race in the Pacific, and we risk sabotaging our future Navy by ignoring the current environment. Unmanned systems, for example, have proven their cost-effectiveness, longevity and lethality as applicable to the Southern Ocean as elsewhere across the globe.

Winning on modern battlefields has been shown to require three basic, core attributes: (i) mass, (ii) human-machine teaming and (iii) integrated systems.

Acquiring capabilities with these attributes would require us to spread the capital we had previously put into one exquisite ship into many effective platforms within a system. In short, we must cease buying big ships and focus on acquiring, building and deploying systems of ships, drones, aerial systems, space, and electronic warfare.

It is concerning that we just aren't doing this. We talk of buying modern frigates and unmanned systems. We are ignoring the lessons of the past and present – New Zealand can't afford enough to achieve both platform mass and modern exquisite frigates.

If we buy exquisite, we lose mass. In putting all capabilities in two to three ships we are far more likely to lose large chunks or all of our at sea capability in one strike. This has been proven in numerous simulations.

Human-Machine Teaming fleets provide a new approach to provide what we – a small nation – needs. At lower cost we can acquire more multi-role platforms with modular payloads for SAM defence, littoral warfare, or long range surface to surface strike. We can 'mother-ship' the unmanned systems, extending reach, surveillance, and lethality exponentially versus a frigate.

Australia has invested heavily in unmanned systems, including Bluebottle USV (like New Zealand), but also including drone submarine Ghost Sharks. Such systems have the same range as frigates, yet are far harder to strike than large surface vessels – they are a real deterrent. New Zealand could run a fleet of these at a fraction of the cost of frigates or manned submarines.

With multi-role ships we can integrate and support a New Zealand and Australian autonomous sub-surface fleet. With such systems we could actually surveil our EEZ, deter an enemy landing on New Zealand shores – and have an effective, capable Navy to be proud of.



Marc Parsons is a technology and transformation leader. He has served for over two decades in the NZ Army and Army Reserve and as a security contractor in the Middle East.

Citadel Edge strengthens NZ presence amid renewed trans-Tasman cooperation

Jennie Vickers recently sat down with Michael Branch (Managing Director National Security and Defence) and Pat Cullen (NZ Director Business and Strategy) of Citadel Edge to ask the key “why now” and “what next” questions.

JV: For those unfamiliar with Citadel Edge, where did it come from and where is it going?

MB & PC: Citadel Edge’s foundations date back to the late 1990s when Mark McConnell, now Executive Chairman, and other former military officers, were delivering services to Defence and Government clients in Canberra through Frontier Group and Jakeman Business Solutions. Recognising the value of a dedicated collaborative network, they began partnering in 2000 and formally joined forces in 2007 to form the Citadel Group.

Mark’s ambitious goal was to build a trusted alternative to the global technology providers — an aspiration likely to resonate with New Zealanders. Since 2007, a series of planned acquisitions has enabled the group to punch well above its weight with now over 700 employees across health, defence and technology verticals. Expect to see Citadel Edge visible in New Zealand in 2026 and beyond.

JV: Why into New Zealand now?

MB & PC: The recent changes in the global environment have brought Australia and New Zealand back into greater defence and security

cooperation. Both governments across the Tasman have recognised this and this has confirmed to us that it is the logical time for Citadel Edge to do the same thing. To this end we are building closer links with our NZ customers and suppliers.

JV: The importance of sovereign capability is a frequent theme on your website and press releases. What will this emphasis mean for NZ?

MB & PC: New Zealand will never have the scale, on its own, to fully protect its own sovereign interests. The Anzac spirit, which has always guided the Citadel Edge business, and the opportunity to be part of the future security of our shared region makes perfect sense for both countries and our combined defence industry to work together to build more local sovereign defence industry capability. Citadel Edge is proud to be a part of building this sovereign resilience in both Australia and New Zealand.

JV: Procurement capability, process and trust in the System is again on the front pages in NZ. What role has Citadel Edge played in Australia in developing the System?

MB & PC: Citadel Edge is especially proud of the work we did in 2013 when we first developed AusTender.

Originally built as a single-purpose system, its robust engineering foundation has allowed it to evolve in line with the Australian Government Department of Finance’s vision: to create, maintain and grow a platform capable of supporting increasing government commitments to involve Australian and New Zealand businesses in public procurement.

Australian Government data on SME participation helps illustrate this success. In 2024–25, an estimated 84% of Australian Government suppliers were SMEs. The Commonwealth also contracted with 1,470 more SMEs than 2023–24 and 1,712 more than in 2022–23.

From our conversations with New Zealand businesses, we know that supplying the whole range of goods and services to their own government remains challenging. Systems such as GETS are widely seen as outdated, and change is urgently needed. Citadel Edge is enthusiastic about opportunities to assist in this area. There is little value to New Zealand in encouraging SMEs to participate more actively in both economies, if the infrastructure is not in place to make procurement processes seamless and cost effective.

Another related project we are proud of is GrantConnect, a sister system we built to provide a



Local industry is a key enabler for any defence force both in terms of materiel as well as know-how and thought leadership. Being an NZDIA member ensures that we can bring our scale and capability to the NZDIA industry conversations.

JV: Citadel Edge's passion is clearly supporting the modern warfighter. Can you share a few examples of projects that could be of relevance in New Zealand?

MB & PC: Citadel Edge draws on decades of experience designing, building, and integrating complex, high-assurance systems that underpin defence and national security operations. Our expertise spans the full lifecycle, from system architecture and model-based engineering to integration, deployment, and long-term sustainment. Citadel Edge has been sustaining large scale enterprise systems across the Australian Defence Force for over 25 years. With this experience and trusted delivery, we believe we can add significant value to the NZDF.

One project of relevance to New Zealand is the NEA (Network Enabled Army) Program to deliver a modern digital LAND C4 system. Our EdgeStack and Edge C2 products are specifically designed to meet the requirements of this program. The products drew from the experience of our team in delivering key LAND C4 programs in Australia.

EdgeStack allows New Zealand to deploy a cost-effective vehicle-based compute solution across both combat and support vehicles with a modern open cyber secured architecture. The EdgeStack platform supports commercial and military applications with centralised management and monitoring capability to allow Army signallers to deploy and operate the vehicles both in barracks and on deployment. Updates can be enabled

centralised publication point for forecast and current Australian Government grant opportunities, as well as awarded grants. This came about because of the Australian Government's need for a more streamlined and centralised approach to management of the extensive number of grants across many government agencies.

We are not aware of an equivalent system in New Zealand. Citadel Edge will be speaking with agencies about how we may be able to help, without the need for reinventing the wheel.

JV: What drove your decision to make NZDIA membership an early priority in New Zealand?

MB & PC: NZDIA is widely respected across New Zealand, Australia and beyond as industry's trusted conduit to government agencies, including the New Zealand Defence Force (NZDF) and the Ministry of Defence (MoD).

For Citadel Edge, supporting sovereign capability also means helping SMEs in both countries access each other's supply chains. After 20 years in the Australian market, growing from the ground up, Citadel Edge has developed strong relationships with both foreign owned Primes and local SMEs. We are excited to learn more about how for example we can help New Zealand SMEs enter Australian supply chains.

over the network without physically visiting each vehicle, saving time and ensuring vehicles remain at the same baseline.

JV: Citadel Edge recently participated in a Cloudera Hackathon. Is innovation an important part of your development ethos and ecosystem?

MB & PC: Our internal teams enjoy the challenge of hackathons, and Citadel Edge, together with Atturra, recently took top honours at the Cloudera Hackathon. As Todd Trevillion said: “Organisations are not struggling to adopt AI; they are struggling to operationalise it in a secure, governed way that delivers real business outcomes.”

Our competition product, ‘RFP to POC Builder’, was designed to ingest large volumes of RFP responses and requirements documentation, extract defined requirements and deliverables, and generate a functional proof of concept or minimum viable product within a selected technology stack. The result reduced delivery time from several weeks to a matter of hours.

JV: With growing media attention on scheduling and focus conflicts among government suppliers, can you tell us about your topical Contractor Reporting Integrity Information Solution (CRIIS)?

MB & PC: This extensive two-year build was designed to deliver an outcome which provides to Government deeper insight into all contractors working across the federal government. It was built to address issues similar to those that arose recently with certain consulting firms.

The system closely tracks contracts and contractors to a granular level against specific work orders or projects, then links that activity back to each relevant contract. With an ability to see across the entirety of



contracts involving each contractor it provides full traceability, and a sense of where the same work is being delivered by the same people to different agencies with no economies of scale for government.

The next phase of work is now underway and will further enhance the functionality, preparing the platform for additional panels to be integrated into this web of interconnected companies and contracts.

JV: Citadel Edge is known to many New Zealand businesses for its strength and capability around cyber assurance, from your discussions to date with New Zealand SMEs, do you believe more needs to be done to ensure data safe participation in NZ government procurements?

MB & PC: Absolutely yes more needs to be done by New Zealand SMEs if they want to maximise their opportunities in New Zealand and Australia. For many this means implementing a cyber security framework that is ready for the inevitable demand to demonstrate higher levels of compliance with world’s best practice.

Critical Infrastructure legislation is on the way to New Zealand, as has already been introduced in Australia, and this will enforce higher levels of cyber security on organisations. As Carew Hatherley the MD of the IQM Group says:

“The need to protect critical infrastructure and services from online disruption is growing daily. Certification to ISO 27001 (Information Security) provides a framework to ensure that suppliers of both products and services have maximised their resilience by implementing internationally recognised best practice measures to counter that disruption.”

“In short, being certified to ISO 27001 (Information Security Management) means you protect data better, position yourself to win more business, reduce risk and strengthen your corporate reputation.”

Citadel Edge has assisted businesses get from their current cyber security position that has served them well enough till now to the standards that will be required to enable them to contract as a cyber secure supplier to New Zealand Government agencies into the future.



Exercise Crete tests critical decision making in combat

The ability of soldiers and officers to pivot and make critical decisions on the battlefield was recently tested at the Waiouru Military Training Area.

Critical decision agility was assessed during Exercise Crete, one of the largest New Zealand Army exercises to be held at the Waiouru Military Training Area this year.

According to a 24 June New Zealand Defence Force report, the exercise, led by 1st Battalion, Royal New Zealand Infantry Regiment (1RNZIR), culminated with a live fire defensive battle at dawn on the final day.

According to Commanding Officer, Lieutenant Colonel Caleb Berry, troops, commanders and the operational Battle Group headquarters were evaluated, with lessons learned at all levels.

“Exercise Crete gave our combat teams and our commanders a clear focus as they continue their activity programme to increase our combat readiness as the ‘Fight Tonight’ capability and leading to Talisman Sabre 27 – a major multi-national exercise in Australia next year,” said LTCOL Berry.

The exercise saw both Queen Alexandra’s Mounted Rifles (QAMR) and Victor Company generate two Combat Teams, including supporting arms of artillery from 16 Field Regiment, and engineers from 2nd Engineer Regiment.

More than 300 personnel took part, including infantry, armour (NZ Light Armoured Vehicles and Bushmaster Protected Mobility Vehicles), anti-armour and direct-fire support weapons, infantry support dogs, unmanned aerial systems (UAS), artillery, combat and plant engineers,



NZ Army soldier fires an anti-armour 84mm Carl Gustaf. Image: NZDF

first and second-line logistics, military police and signallers.

LTCOL Berry said the exercise was also a tactical milestone for 1 RNZIR since its amalgamation with QAMR Regiment in December 2025 and a significant step for the New Zealand Army’s Motorised Infantry Battle Group (MIBG).



LAV fires its 25mm cannon during Ex Crete. Image: NZDF

“The purpose was two-fold, firstly for the Companies to generate and evaluate their Combat Teams, and secondly to develop the overarching MIBG headquarters, ensuring its staff and processes could effectively command and control the troops at the Battle Group level,” he said.

LTCOL Berry noted a particular point of success was the integration of supporting elements from artillery, engineers, signallers, logistics and military police who also gained valuable experience and time in the field alongside the combat teams.

The next big training exercise for 1 RNZIR and the wider 1st (NZ) Brigade will be Exercise Hill 60 in August, where the entire Battle Group will be evaluated. This will include soldiers from the 2nd/1st Battalion RNZIR acting as live, free-play enemy to test troops and command teams.

Right Solution, Right Quantity: A new Defence procurement framework

Graeme Doull proposes a framework for Defence procurement that prioritises proven solutions and calculates required quantities based on numbers needed for sustained operational capability.



Graeme Doull is a logistics management specialist. He was previously a New Zealand Army Armoured Corps officer and saw operational deployment to Bougainville and with INTERFET to East Timor.

Boots, rifles, frigates, and helicopters – the NZDF has delivered some poor procurement outcomes in the past. New Zealand defence sourcing is slow, costly, and complex, and it tends to fail in two predictable ways: selecting problematic novel solutions or buying too little equipment. New Zealand can ill afford to keep relearning these lessons.

The NZDF's [*Defence Capability Plan*](#) (DCP25) has already provided some good guidance around avoiding novel solutions and there are also positive signals supporting domestic innovation in the [*Defence Industry Strategy*](#) (DIS) – although how this will be operationalised remains unclear. The biggest gap is making sure force design and resilience are correctly addressed.

Building on these documents a procurement framework is proposed:

- *Buy the right solution:* prioritise proven, in-service systems recommended by trusted partners. Where innovation is required, leverage domestic capabilities.
- *In the right quantity:* base acquisitions on a deployable force structure. Multiply by an appropriate resilience factor.

Prioritise proven solutions

New Zealand should leverage its international defence relationships, particularly Australia, when procuring

equipment. DCP25 makes this clear: “New Zealand will seek to procure the same assets and equipment as Australia where it makes sense to do so.” Our conventional forces are not fundamentally different from those of Australia or other defence partners, and we should prioritise equipment that is proven by them to work.

Novel solutions create new risks. A historical example is the MARS-L rifle. Defence invested heavily in trials and testing only to select a weapon that was unproven and incompatible with our closest partner. Predictably, issues followed and remediation was required. There is a strong argument that New Zealand should have procured the updated EF88 to align with Australia, or, if that platform was considered unsuitable for some reason, adopted a different proven system such as the HK416.

Plan ANZAC, signed in 2023, commits New Zealand to contributing a motorised infantry battalion group to an ANZAC Brigade. If the NZ Army is serious about interoperability, common equipment is not a ‘nice to have’ – it is essential. Where Australia fields a proven and effective solution at a reasonable price, the default position should be to acquire the ADF system – to the same specification, completely unmodified, fully interchangeable.



However, Australia may pursue capabilities that the NZDF cannot afford, field solutions that are not well suited to New Zealand's requirements, or they may have had a procurement failure where their solution isn't one they would recommend. As a specific example, the current ADF armoured vehicle catalogue offers no options suitable for the Pacific theatre – where anything larger than a Toyota Hilux would struggle to operate. If New Zealand determines that a light armoured vehicle is required as part of a [Pacific reset](#) then it would need to come from outside of the existing ADF options.

When it is appropriate to look beyond existing ADF options, New Zealand should look to other trusted partners, such as Five Eyes nations, Singapore, Korea, and Japan. The intent should remain consistent: procure equipment that has already been successfully fielded. New Zealand should engage directly with partner nations to understand their experience with a given solution, and whether they would recommend it.

Only once these options are exhausted – or where genuinely new capability is required – such as emerging drone and counter-drone systems – should New Zealand pursue novel solutions. This should remain the exception. The majority of acquisitions should be off-the-shelf, in-service solutions.

This approach does not mean accepting inflated prices or inferior capability. Direct negotiation can offer significant advantages for both NZDF and suppliers. For industry, it reduces cost, risk, and inefficiency; for Defence, it enables interoperability, speed, and – if managed effectively – fair pricing.

Where New Zealand adopts Australian equipment, it should expect comparable pricing under similar terms. Australia invests heavily in competitive tendering, research, development, and innovation; New Zealand should leverage those outcomes through existing bilateral arrangements rather than duplicating effort.

Domestic Technology Acceleration - Innovate at the edge

Emerging technology is an area where the NZDF should be far more ambitious. While New Zealand cannot compete in the production of ships, tanks, or aircraft, it is well placed to develop capabilities in areas such as low-cost drones and counter-drone systems, where success depends on pragmatism, adaptability, and affordability.

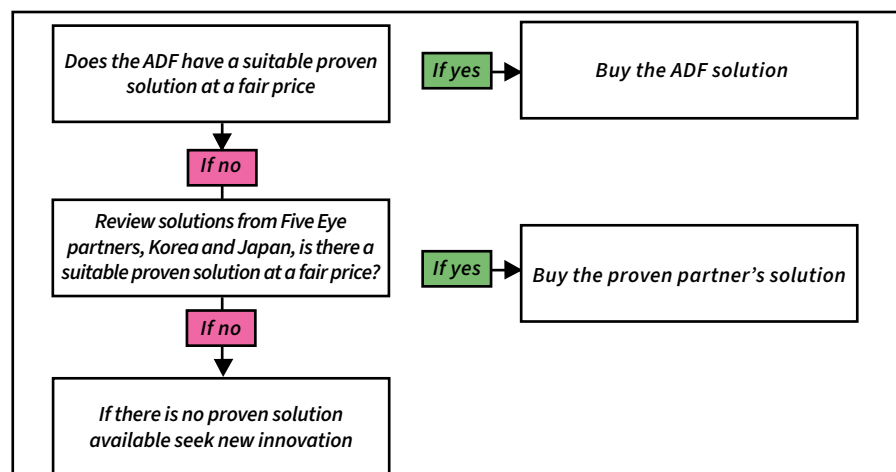
Rather than subsidising foreign defence industries, New Zealand should use defence spending to accelerate domestic capability and strengthen collaboration between government, industry, and frontline units.

The Defence Industry Strategy's proposed Technology Accelerator (funded for \$100-200 million) and additional funding (\$50 million) for Defence Science and Technology (DST) are positive steps, but there is little evidence yet of a genuinely new approach. Existing procurement frameworks remain heavily process-driven, relying on RFIs and RFPs that tend to deliver like-for-like replacements rather than meaningful innovation. Making a meaningful change will require different ways of working.

Real defence innovation requires a fundamentally different model: rapid iteration, close integration between industry and operational units, continual 'battlefield' adaptation, and embracing risk. Battle labs with industry partners working with combat units, with funding based on time and materials, rather than outcomes, will better support experimentation and adaptation.

Achieving this will likely require outsourcing innovation from traditional NZDF Headquarters and Ministry of Defence structures to a genuinely independent technology accelerator with dedicated funding and far greater agility. Its purpose should be getting 'good enough' capability into operational hands quickly and improving it continuously.

The global defence sector is already being disrupted by companies such as Anduril Industries, while New Zealand has demonstrated its own ability to produce globally disruptive firms including Rocket Lab, Fisher & Paykel Healthcare, Zuru, and Xero. Applying the same Kiwi strengths – ingenuity, pragmatism, and lean low-cost thinking – to defence technology would strengthen the NZDF, increase New Zealand's value to defence partners, and create export opportunities that help offset the cost of importing other defence capabilities.



Creating genuine resilience

There are numerous examples of where procurement quantities bear little resemblance to operational requirements: 105 NZLAVs, 60 VAMTAC utility vehicles, 43 Bushmaster vehicles, five Seahawk helicopters and only two frigates. These figures are likely more reflective of budget constraints than coherent military planning, leaving personnel to work with a hodgepodge of different platforms in insufficient numbers.

Insufficient equipment can leave the NZDF without a deployable capability. Since the introduction of the Anzac-class frigates there have been several, often prolonged, periods where both vessels were simultaneously unavailable for operational deployment due to upgrades, heavy maintenance, or crewing constraints.

Determining how much equipment to acquire requires consideration of two factors: the quantity needed to deliver the operational capability, and the level of resilience required to sustain it. These are not complex questions, yet the NZDF continues to get this wrong.

Organisational design should drive equipment numbers. For example, mounting an infantry company in Bushmasters requires 18 vehicles – four per platoon, two for the support section, and four for the company headquarters. In addition, at least two recovery vehicles, two fuel tenders and two logistics vehicles are required – providing essential in-theatre resilience.

Once the deployable design is defined, a resilience factor must be applied. A minimum multiplier of three is required to sustain a capability – one deployed, one training, and one reconstituting. This is the lowest acceptable baseline. More complex or vulnerable capabilities, such as aviation assets, require even higher resilience factors.



New Zealand Army VAMTAC utility vehicle. Image: NZDF

This is well established from operational experience, yet seemingly frequently overlooked in New Zealand procurement or force design.

With only two Anzac frigates, New Zealand has not been able to reliably field a frigate. Similarly, five Seahawks realistically allow for only one aircraft to be sustainably deployed. The acquisition of 43 Bushmaster vehicles (25 troop carriers, 10 command variants, four ambulances, two recovery, and two logistics vehicles) is incoherent – insufficient to mount two companies, let alone three, and lacking the support vehicles required to deploy, train, and sustain operations concurrently.

Buying fewer platforms to fit a budget creates orphaned capabilities – fleets that cannot be sustained and platforms that lack resilience. If the required quantity

cannot be afforded, the options are to increase funding, reduce per-unit cost, or accept the reality that a sustainable capability is undeliverable.

While reducing cost may involve accepting lower-specification variants or selecting alternative platforms, what should be avoided is the NZDF’s habitual ‘fitted for, but not with’ approach, where full capabilities are deferred. This creates critical training and sustainment gaps, particularly for maintenance personnel.

Adding features only at the point of deployment has a history of creating problems in theatre – for example, armoured vehicle modifications made during the initial East Timor deployment caused significant equipment failures early in the mission. This would have had disastrous consequences if operations had been of a higher tempo.

Operational Requirement	Resilience Factor	Procurement Quantity
124 x 	x3	372 x 
2 x 	x4	8 x 



New Zealand Army Bushmaster 5.5 vehicles. Image: NZDF.

The cost of insufficient resilience

If a deployment is required, and there is insufficient depth to sustain operations, there are real-world consequences for personnel and organisational resilience.

There is a credible argument that battalion-level deployments to East Timor continued to have effects more than 20 years later. Six deployments exceeded the Army's ability to deliver two.

These and subsequent commitments – including Afghanistan and managed isolation support – compounded the strain on force resilience. The enduring impact is demonstrated by the only relatively recent return of complex combined-arms exercises above company level. Prior to Timor, they were a regular feature of training.

Sustaining battalion deployments in East Timor required non-infantry personnel to be employed in combat roles, diluting skills across the wider Army and drawing personnel away from their core trades for extended periods. Artillery gunners,

for example, spent 18 months performing infantry roles (when pre- and post-deployment activities are included). Despite intensive training and highly engaged teams, employing personnel without the depth of institutional knowledge found in dedicated infantry units resulted in a less capable force and increased risk.

Standardisation enables delivery and innovation

Defence procurement has been inconsistent in the past. The Bushmaster purchase is a case study: the platform is too large for the Pacific theatre; variant numbers are difficult to reconcile with any operational model; and there are insufficient recovery and logistics vehicles to concurrently support deployment and training. Arguably the wrong solution, and definitely the wrong quantity.

A framework that enables proven solutions in sufficient numbers for the majority of acquisitions should create more capacity for innovative approaches. Outsourcing

innovation through a defence technology accelerator will fast-track the delivery of drone and counter-drone capabilities, and leverage New Zealand's strengths.

Freeing up NZDF capacity would allow other types of innovation too. Could New Zealand explore a triangular arrangement in which NZLAVs are transferred to Ukraine in exchange for replacement vehicles better suited to Pacific operations? Such an approach could improve strategic coherence in force design while ensuring that the existing fleet is put to good use.

Rebuilding the NZDF will require significant intellectual and financial investment. There are important decisions on organisational design that need to be made – New Zealand must look to the future, not just replace existing equipment. A framework that prioritises proven solutions, stimulates domestic innovation, and ensures sufficient resilience, will create capacity to focus on those decisions.

Navigating a New Era: The case for an independent national security think tank

A dedicated, independent think tank is needed to bridge the analysis gap between government and the wider community, write Museum Street Strategies' Tim Hurdle and Ross Browne.



Ross Browne is a public affairs consultant with a background in government relations and experience in the national security, telecommunications, and aviation sectors

For decades, New Zealand's foreign and security policy rested on a consensus born of a relatively benign strategic environment. We prioritised trade access, enjoyed the implicit security of our partnerships, and operated under the assumption that our geographic distance offered a natural buffer from global conflict.

Our current landscape of foreign policy analysis often relies on established orthodoxies or is constrained by risk aversion and perspectives from voices that are sometimes anchored in a past era.

There is a generational belief in an 'independent foreign policy' based on a misty-eyed interpretation of the ANZUS split and the nuclear-free ships ban – which manifests as opposition to the Western alliance.

That era is over. Today, we are witnessing a fundamental shift in the global order, characterised by multipolar competition, the erosion of the rules-based international system, and a rise in hybrid threats. We see daily cyberattacks and disinformation and the increasing use of AI by malign actors. Our Pacific neighbourhood is seeing increasing strategic competition.

New Zealand must navigate the volatile realignment of traditional alliances, unilateral actions and shifting allegiances. Our politicians have recognised to increase core defence spending, but there has been only limited debate as to the nature of that spend. Line of Defence is an important part of providing a forum for debate on how we enact change.



Tim Hurdle is a government relations and advocacy expert with over 20 years of experience in senior government and commercial roles





As the geopolitical landscape grows increasingly volatile, New Zealand's policy responses must evolve. Recent consultations conducted by Museum Street Strategies show there is a clear strategic gap in our national discourse: the absence of an independent, dedicated think tank focused on foreign affairs and national security.

Elevating the National Debate

Currently, the formulation of security and defence policy is almost entirely concentrated within the government sector. While our public officials work diligently, our national conversation suffers from a lack of contestable, outside-of-government analysis.

Challenging the traditional orthodoxy is difficult, which is concerning, given the rapid changes as new technologies transform warfare.

To navigate the complexities of today's emerging issues, such as the implications of AUKUS Pillar 2, the vulnerability of underwater infrastructure, or the strategic challenges in the Pacific, we require fresh, rigorous, and forward-looking research. This should embrace the knowledge of the wider community,

often where the technological and mechanical expertise is held.

A dedicated, independent think tank would bridge this gap by providing:

- **Contestable Policy Advice:** Offering considered alternative policy options to government, thereby enhancing the quality of decision-making.
- **A Clearer Strategic Voice:** Actively advocating for New Zealand's active participation in regional security and defending core democratic values, a position that commands broad public support but remains under-represented in current commentary.
- **Global Connectivity:** Serving as a conduit for international insights, fostering peer-to-peer engagement with the robust think tank ecosystems in the US, UK, and Australia, and ensuring New Zealand remains connected to global thought leadership.

A dynamic approach to our future

Museum Street Strategies has spoken with a number of parties across business, academia, and the policy community who support this concept

and recognise its necessity. The model we propose is one of a lean, agile institution that leverages digital platforms to foster informed debate rather than being weighed down by legacy infrastructure.

By operating as an independent entity, a new think tank can provide unbiased assessments, unencumbered by the political constraints that often limit government-funded research. It would act as a vital resource for policymakers, the media, and the public, helping to build a more sophisticated understanding of the difficult choices our country faces.

A major focus would be on disseminating this research through specialist media. As we mark the 10th anniversary of Line of Defence, its role is becoming increasingly important to our national discourse.

Ensuring that New Zealand is 'headed to a safe harbour' requires us to strengthen our capacity for critical, independent thought. We invite stakeholders and interested parties who share this vision to engage with us, as we seek to turn this proposal into a cornerstone of our national security landscape.

Has New Zealand's strategic environment undergone a fundamental change?

Has the world changed, and are New Zealand's existing strategic relationships fit for purpose? Wayne Mapp explores whether a relationship rethink is necessary.



Senior Contributor Hon Dr Wayne Mapp QSO was New Zealand's Minister of Defence and Minister of Science and Innovation from 2008 to 2011.

There is a great deal of anxious speculation about the prospects of a dramatic change to New Zealand's strategic environment. Much of the discussion revolves around the proposition that the American century is drawing to a close. Consequently, New Zealand's security arrangements are seen by some as no longer viable.

It is certainly true that the United States, especially under President Trump, is retreating from Europe. Even the war against Iran has the air of finality for the United States' incursions in the Middle East, uncomfortably recalling the end of Anglo-French dominance in the Middle East following the Suez debacle of 1956.

While President Trump may be more caustic in his attitude toward Europe than previous presidents, there can be little doubt he is only reinforcing a long-term reduction of United States commitments to Europe. Well over a decade ago, President Obama was signaling a pivot toward the Asia Pacific.

New Zealand and Australia have been severely hurt by the closure of the Hormuz Straits. However, unlike Europe, the war has not led to a fundamental reappraisal of the role of the United States in the Asia Pacific.

There are several New Zealand commentators, primarily from the Left, who would prefer a different outcome: that the mercurial nature





of the Trump administration should result in New Zealand substantially withdrawing from the hitherto close relationship with the United States. This is an unlikely scenario. The United States is too deeply intertwined within the Pacific to weaken its links with Australia, and by implication, with New Zealand.

It is worth restating the reasons why the United States is withdrawing from Europe and building up in the Asia Pacific. The principal reasons are the weakening of Russia and the continuing rise of China.

Although Russia has a powerful legacy nuclear deterrent, in most other respects Russia is a declining power. Russia's population of 145 million continues to shrink. The Russian economy is progressively de-industrialising and increasingly dependent on the export of basic raw materials such as crude oil.

In contrast, China has a population of 1.4 billion, literally ten times greater than that of Russia. China has the world's second largest economy, and perhaps more significantly, is by a considerable margin the largest exporter of manufactured goods. For the United States, China, not Russia, is seen as its greatest competitor. For many in the United States, the perception is that China is the United States' principal

adversary. For many in the United States, the perception is that China is not just a competitor, it is the United States' principal adversary.

Since China is an Asia Pacific power, naturally the United States will increasingly focus on the Asia Pacific. However, the pivot is not just a reflection of current great power competition.

The United States has sovereign territory right across the Pacific. The connection is much deeper than merely having the West Coast bordering the Pacific. There is the state of Hawaii, the territories of Guam, Midway, Wake, and in the South Pacific, American Samoa, all deep within the Pacific. In addition, there are numerous atolls and islets plus associated territories. There are no such analogies in the Atlantic. The United States is vested in the Pacific in a way that it is not in the Atlantic.

Virtually all United States territories in the Pacific are located north of the equator. But as relatively small islands, they are vulnerable, as was shown in World War Two. Australia serves as the bulwark of protection. The defeat of Japan was heavily dependent on Australia being the key base to mount the stepping-stone invasions of the island territories that had been conquered by Japan.

This fundamental geographic strategy remains as imperative today as it did over 80 years ago. The United States alliance with Australia is the cornerstone of United States strategy in the Asia Pacific. For both Australia and the United States, the ANZUS alliance is indispensable.

The United States role can be contrasted with that of China. Although China is the most important trading partner for both Australia and New Zealand, China could not serve as a guarantor of Australian and New Zealand sovereignty. There is no strategic imperative or interest, whether by China or Australia and New Zealand, to build such a strategic alliance.

Instead, the interest of both Australia and New Zealand is to ensure that the great power rivalry between China and the United States remains within the bounds of international law.

ANZUS continues to lock New Zealand in. It was noteworthy that Prime Minister Luxon referred to ANZUS as the basis of Australia being New Zealand's only formal ally, though the ANZAC relationship is much deeper and has much older antecedents than an agreement from 1951. It is unthinkable that New Zealand would leave the Australia New



Zealand alliance, though different New Zealand governments may give the alliance varying levels of attention.

ANZUS is, of course, a trilateral agreement. It links New Zealand to Australia, and it links Australia to the United States. Since 1987, ANZUS no longer links New Zealand and the United States. But this is a matter of convention.

Notwithstanding New Zealand's nuclear free status, New Zealand has never formally withdrawn from ANZUS. Instead, the United States suspended its alliance obligations toward New Zealand due to New Zealand no longer allowing United States nuclear powered or nuclear armed vessels to enter New Zealand ports. The ANZUS agreement remains and could be fully reactivated if the parties, in particular the United States chose to do so, irrespective of New Zealand's nuclear free policy.

The relevance of ANZUS is that it embodies a set of alliance relationships that still, albeit in differing ways for each of the parties, sets the strategic relationship between them. These relationships are so deep that it not foreseeable that any of the three nations would establish a new set of strategic security relationships that would fundamentally disable the ANZUS relationships.

Strategic relationships are not fundamentally about the formal

agreements that establish them. Rather the agreements reflect relationships of long-standing mutual advantage backed by tangible power. In this sense, ANZUS remains a bedrock agreement within the Pacific.

The reasons for ANZUS, stemming back to World War Two, remain extant. Australia still sees the United States as the guarantor of its sovereignty. The United States still sees Australia as the bulwark protecting its territories across the Pacific. New Zealand remains enmeshed with both Australia and the United States. There are no other alternative security relationships for any of the three states that could replace ANZUS.

However, being within a set of security relationships does not mean that any of the three states lose all agency. Each of them has their own perspective of the world and how they interact with other states. Australia and New Zealand are not vassal states of the United States.

Nevertheless, the depth and importance of each of the relationships does affect how each state conducts itself. For instance, Australia, as a formal ally of the United States, felt it necessary to express a level of support for the initial United States attacks on Iran, specifically with respect to Iran not developing nuclear weapons. New Zealand, which is no longer regarded

as a formal ally of the United States, did not see it as necessary to provide such statements of support.

The question posed at the outset was whether New Zealand's strategic environment has fundamentally changed. The answer is no, at least not to the extent that New Zealand could contemplate changing its core strategic partners.

There is, however, a lesser question. Has the strategic environment changed to the extent that New Zealand should consider a wider range of strategic partnerships? This question can be answered in the affirmative.

New Zealand's longest standing defence relationships are with Commonwealth nations. The Five Power Defence Arrangement involves Australia, Malaysia, New Zealand, Singapore and the UK. New Zealand's Canadian connections extend back to World War One.

However, New Zealand has made little of other opportunities with other Commonwealth nations, India being notable in this regard. With the conclusion of the Indian free trade agreement there is the opportunity to build on that in the defence and security arena. Australia and India are deepening their links given they are the major states bordering the Indian Ocean. New Zealand should actively broaden its defence and security links, especially given the growing importance of India.

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Are we living in more dangerous times?

The evidence clearly points to the world being the most dangerous that it has been in decades, but we have seen such strained times before, writes Editor-at-Large Dr Peter Greener.



Dr Peter Greener is Line of Defence Magazine's Editor-at-large. He is a Senior Fellow at the Victoria University of Wellington's Centre for Strategic Studies and a former Academic Dean at the Command and Staff College of the New Zealand Defence Force.

On 17 March of this year New Zealand's Defence Minister Judith Collins and Foreign Minister Winston Peters met with their Australian counterparts Richard Marles, Deputy Prime Minister and Minister for Defence and Foreign Minister Penny Wong. They were meeting for the third [Australia New Zealand ministerial meeting](#), ANZMIN.

In a press conference following the meeting Richard Marles announced that he and Judith Collins had signed an agreement regarding Operationalising the Australia New Zealand Alliance. This agreement commits Australian and New Zealand Forces to work as closely and in as integrated a fashion as possible to achieve the vision of [ANZAC 2035](#).

In underlining why New Zealand sought this increased engagement, [Minister Collins emphasised](#) what a dangerous world we live in: "I think we live in the most dangerous times that I have ever known in my lifetime, and it's so important to have good friends who you can rely on."

Writing for The Guardian the following month, British Prime Minister [Sir Keir Starmer proffered similar comments](#): "the reality is the world has changed: no longer do we live in the benign conditions found during the early part of this century. The world today is more volatile and dangerous than at any other point in my lifetime."

But do we live in an unprecedentedly dangerous world? The answer is complicated: it is simultaneously both yes and no.

The Cold War

Judith Collins was three and a half years old and Keir Starmer barely six weeks old when the Cuban missile crisis began. The crisis began on 14 October 1962, when a United States U2 spy-plane [identified a Russian ballistic missile](#) on a launch pad in Cuba. On 16 October the photographs were presented to the President John F. Kennedy. The following thirteen days saw the world come desperately close to nuclear war.

During this time President Kennedy met with advisors before deciding on a course of action, which he presented to the public on 22 October in a television broadcast at 7 p.m. EST. The programme was broadcast live on BBC radio, which continued operating after midnight so that Britain could hear what was proposed. Kennedy ordered a blockade to be enforced with ships and aircraft and insisted that Soviet leader Nikita Khrushchev order the missiles and launch sites be dismantled.

I was twelve years of age and woke up to the news the next morning. At school that day we were told by our form teacher that we could bring in transistor radios to keep abreast of the news as the crisis deepened. As children we had watched broadcasts



U.S. Navy P2V Neptune flies over a Soviet freighter in October 1962. Image: US Defence Department

on the dropping of the bombs on Hiroshima and Nagasaki and the subsequent horrors. The prospect of nuclear war was not an abstract concept.

Over that week as tensions rose, we all listened to the news at break times. Khrushchev at first refused to respond, but ultimately reacted to President Kennedy's demands by insisting on an assurance that Cuba would not be invaded. By the weekend he was demanding that the USA remove its missiles from Turkey.

On Saturday 27 October the President's brother, Attorney General Robert Kennedy, met with the Soviet Ambassador to the United States and agreed that the [Jupiter missiles would be removed](#), but that the agreement must be kept secret. The following day, Khrushchev agreed that Soviet missiles would be removed from Cuba.

It was to be some forty years before the world became aware of just how close we had come to nuclear Armageddon. The 40th anniversary of the Cuban missile crisis in October 2002 saw the National Security Archive from the US [organise a conference in Havana](#). Researchers at the conference revisited the events of an attack by US forces on a Soviet diesel submarine armed with a nuclear missile.

Submarine B-59 was one of four nuclear-armed submarines dispatched to Cuba. Vasili Arkhipov, the Chief of Staff of the flotilla, was on board. On the night of the 27 October 1962 B-59 [came under attack](#) with depth charges from a US destroyer, the USS Beale. Historical records revealed that the intent of this action was to make the submarine surface but the crew of the

submarine did not know that the depth charges were non-lethal rounds.

The submarine was incommunicado and, fearing that that world war three had broken out, Captain Valentin Savitsky ordered the B-59's nuclear torpedo to be prepared for firing. The third senior officer, political officer Ivan Maslennikov agreed. Firing the missile, though, required all three senior officers on board to agree. And Arkhipov, second in command, refused permission.

Reporting fifty years after the crisis *The Guardian* [ran a story with the headline](#) *Thank you Vasili Arkhipov, the man who stopped nuclear war*. It began with the sentence: "If you were born before 27 October 1962, Vasili Alexandrovich Arkhipov saved your life. It was the most dangerous day in history."

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The Contemporary World

None of this is to suggest that the world is not now a dangerous place. Since Russia's full-scale and ongoing invasion of Ukraine in 2022, Israel's wars in Gaza, Iran and Lebanon, President Trump's return to the White House in 2025 and subsequent war with Iran, China's growing military might, along with its activities in the South China Sea and the grey zone, the stable world order we knew for decades is rapidly becoming increasingly unpredictable.

How different world leaders were looking to respond to this unpredictability began to be laid out at the World Economic Forum in Davos in late January 2026. Here [German Chancellor Friedrich Merz](#) began by saying, "The calm and peace up here on the 'magic mountain' in Davos is at stark contrast to a world whose old order is unravelling at breathtaking pace."

He went on to say, "We have entered a time of great-power politics. The international order of the past three decades, anchored in international law has always been imperfect. Today, its very foundations have been shaken. This new world of great powers is being built on power, on strength and when it comes to it, on force. It is not a cozy place."

At that same Forum, Canadian Prime Minister [Mark Carney](#) said, "Today I will talk about a rupture in the world order, the end of a pleasant fiction and the beginning of a harsh reality, where geopolitics, where the large, main power is submitted to no limits, no constraints." He went on to highlight that rather than acquiescing to hegemony, middle powers should build strength together to counter the rise of hard power and great power rivalry.

Later in April, [speaking to Al Jazeera](#), he emphasised that the world was now a more dangerous place, and that one of its previous strengths – its relationship with the United

States, had now become a weakness. He added that Canada must take care of itself and not rely on one partner.

Shortly after, in June 2026, *TIME Magazine* [carried the headline](#), *President Trump Revisits Idea to Annex Canada and Make It the 51st State*.

Indeed, expanding the United States of America was very much on President Trump's agenda when, as early as August 2019, had made clear his desire for the United States to take over Greenland – a desire that has returned again in 2026 to unprecedented levels.

In January, the BBC had reported that President Trump [had made it clear that](#) "the US needs to 'own' Greenland to prevent Russia and China from doing so." Later that month, [speaking at Davos](#), he added "This enormous unsecured island is actually part of North America... That's our territory. It is therefore a core national security interest."

In response Denmark's Prime Minister Mette Frederiksen [visited Greenland](#) in a show of support for Greenlandic Prime Minister Jens-Frederik Nielsen and his rejection of the US claim. Speaking at the Munich Security Conference the following month, the Danish Prime Minister [told the Conference](#) that Donald Trump was still "very serious" about acquiring Greenland.

As if to underscore the point, Euro News on 3 June [reported that US Secretary of State](#) Marco Rubio had "reignited the flame over the US's continued pursuit of Greenland." When asked by the House Foreign Affairs Committee if the Secretary was aware that Greenland remained a part of the Kingdom of Denmark he replied "...For now."

Just before attending the Davos summit, on 9 January, [President Macron had asserted](#) that the United States was "breaking free from

international rules" and "gradually turning away" from some of its allies: "We are living in a world of great powers with a real temptation to divide up the world." At Davos [it was revealed](#) that "confidential talks" were ongoing with the Germans on creating a joint European nuclear deterrent.

By March, *The New York Times* reported that France had changed its nuclear policy to extend security guarantees to European allies. [This was in light](#) of how an aggressive Russia and a retreating United States were redrawing the security landscape in Europe. Hence by the end of May Norway [became the ninth country](#) to sign up to the French nuclear deterrence scheme. The United Kingdom, Denmark, Germany, Greece, the Netherlands, Poland, Sweden and Belgium had by then already signed defence agreements with France.

On the other side of the world similar sentiments had developed. On 20 February 2026 Japanese Prime Minister Sanae Takaichi, in her first address to Parliament after being re-elected, warned of the dangers of increasing Chinese 'coercion'. She indicated that she would address Japanese defence policy, and ease restrictions on Japanese exports of military equipment. "Japan faces its most severe and complex security environment since World War II," *NBC News* [reported Takaichi as saying](#).

The Japanese Prime Minister noted China's widening military activity adding "China has intensified its attempts to unilaterally change the status quo through force or coercion in the East China Sea and South China Sea." She went on to highlight North Korea's growing nuclear missile capability, as well as China's closer security ties with Russia. By May Japan's Defense Minister [Shinjiro Koizumi said](#) that Russia's military



Mogami Class Frigate. Image: Japan Maritime Self-Defence Force

behaviour in the region combined with its deepening links with China were to be seen as “a serious defence concern.”

The Japan Air Self-Defence Force scrambled fighters 595 times during the period April 2025 to March 2026. Russian aircraft triggered 214 of those intercepts whilst 366 were Chinese aircraft.

Closer to home

The [*Defence Policy and Strategy Statement 2023*](#) had begun to make it clear that New Zealand could no longer afford to imagine that we were still surrounded by the world’s largest moat.

Speaking at the launch of the Statement, Defence Minister Andrew Little emphasised that we no longer lived in a benign strategic environment. The Statement itself was clear that “New Zealand is facing a more challenging strategic environment than for decades, with increasing threats to our security.”

[*Australia’s National Defence Strategy in 2024*](#) similarly asserted that Australia’s strategic environment was deteriorating and that the assumptions which had underpinned Australia’s security for decades — geographic distance, warning time for conflict, and Australia’s regional military superiority — were no longer valid.

With the release of the New Zealand [*2025 Defence Capability Plan*](#), the language was even stronger, noting that New Zealand was now facing “its most challenging and dangerous strategic environment for decades,” and emphasised the challenges facing the international rules-based order. It went on to say “Intensifying strategic competition is increasing global and regional tensions, and raising the prospect of military confrontation and conflict.”

[*Australia’s 2026 National Defence Strategy*](#) was officially launched at the National Press Club of Australia in Canberra by Richard Marles, the Deputy Prime Minister

and Minister for Defence on 16 April 2026. He too highlighted that Australia is facing the “most complex and threatening strategic circumstances since the end of World War II. International norms that once constrained the use of force and military coercion continue to erode.”

On Anzac Day 25 April 2026 Wellington’s The Post editorial concluded with the following statement: “The world in 1914 was described as a powder keg waiting for a spark. The world in 2026 feels similar. Defence spending is up, alliances are unstable and Europe is rearming. As well as remembering old wars, we must pause and think about current and future ones.”

Are we living in more dangerous times than previously? The evidence clearly points to the world being the most dangerous that it has been in decades, but we have seen such strained times before and in such times calmer heads can, and must, prevail.

Trump is the warning, not the exception

Portrayals of the Trump presidency by New Zealand academics as an historical aberration fail to acknowledge the extensive history of US coercive statecraft and its implications for the future, writes Associate Professor Damien Rogers.



Dr Damien Rogers is Associate Professor of International Relations and Security Studies at Massey University. He is the author of *War, Laws, Rights and the Making of Global Insecurities* (Palgrave MacMillan, 2022).

Explaining the politics of contemporary world affairs, even in rare moments of relative calm, is challenging. Whereas journalists describe what happened and when, where it occurred and who was involved, and how events unfolded, academics are expected to analyse those events and explain why they occur, as well as to situate them within their broader politico-strategic, economic, and social contexts.

Academics are custodians of specialised and highly reliable forms of knowledge produced according to disciplinary conventions and evaluated through institutional hierarchies of expertise. In New Zealand they also enjoy a statutory role as society's critic and conscience. The public has every reason to expect that academic commentary will illuminate underlying political forces at play rather than simply reproduce the orthodoxies that circulate within the prevailing configurations of power. Yet that expectation is not always fulfilled.

Much recent commentary on New Zealand's search for security by academics portrays the presidency of Donald J. Trump as an historical aberration that constitutes an unfortunate departure from an otherwise stable liberal tradition of American leadership. Yet such a characterisation sits uneasily

alongside even a cursory reading of the history of United States foreign policy.

The expansion of the American state was accompanied by sustained atrocities against indigenous peoples, unrestrained territorial wars against neighbouring states, horrific interventions throughout Latin America, Southeast Asia and the Middle East, and repeated recourse to state violence in pursuit of political objectives.

Seen in this light, Trump's willingness to employ or threaten the use of state violence appears less as a radical departure than as a continuation of established patterns. His exercise of state violence is not exceptional to the American political project because such violence has long been one of its constitutive features. What distinguishes Trump among US presidents is not his reliance on coercion but his explicit, transactional, and unapologetic style.

Put simply, he often says publicly what previous administrations preferred to express through excruciatingly polished diplomatic rhetoric.

The tendency to treat Trump as exceptional risks fostering a form of historical amnesia among the New Zealand public. It encourages the public to misrecognise stylistic changes in political performance for substantive developments in the way



US President Donald J. Trump. Image Wikipedia

American power is structured and used to coerce.

Another limitation concerns the conceptual lenses through which New Zealand academics tend to analyse contemporary world affairs. Their accounts are often framed through concepts associated with political realism: strategic competition; alliance management; deterrence; military capability; and balance-of-power politics. Their implicit political anthropology is pessimistic because they believe states inhabit an anarchic environment where survival depends upon preparing for violence and where prudence requires constant vigilance against all potential enemies.

Such approaches undoubtedly capture the importance of international political strategy. Yet in doing so they privilege one intellectual tradition over others while presenting its assumptions as common sense. The result is that political possibilities organised around cooperation, institution-building, negotiated restraint, and legal ordering recede from view.

A world interpreted primarily through the logic of “kill or be

killed” struggles to recognise the equally persistent logic of “live and let live.”

For my students of international relations this contest is familiar. Less a disagreement about evidence, it is more an ongoing struggle within the academic field over which theories, histories and vocabularies should be regarded as authoritative.

New Zealand academics are also prone to understating the significance of international political economy. Trump’s administration frequently exhibits a mercantilist logic in which military leverage serves commercial objectives rather than the other way around.

Tariff disputes, sanctions regimes, and proposals linking geopolitical influence to resource extraction or market access suggest an understanding of power in which prosperity is secured through the practices of coercion. Pressure over defence spending is less about building the capabilities of more militarily powerful allies as it about growing markets for America’s arms industry.

Rather than building economic strength to sustain military power, Trump often appears willing to deploy military and diplomatic pressure to reshape economic relationships. Security becomes a means of market-making rather than simply market protection.

This misunderstanding of the politics of Trump’s presidency raises important questions about the integrity of academic knowledge and epistemic capital when used in public commentary. Universities are fields of competition in which scholars seek recognition not only from peers but also increasingly from policymakers, officials, and communities of professional practice. However, accounts that resonate with official security thinking may acquire greater visibility precisely because they are more legible to defence establishments, intelligence

agencies and foreign ministries, and not because they possess greater explanatory power.

None of this implies bad faith. It does suggest, however, that academic incentives can align with official priorities in ways that narrow the boundaries of public debate. When scholarly commentary reproduces the assumptions embedded within New Zealand’s national security strategy, it risks functioning less as independent criticism than as intellectual reinforcement.

This matters because New Zealand’s statutory conception of the university demands something more. The role of the academic is not merely to provide running commentary on daily events but to expose and carefully scrutinise deeper configurations of power and the material and ideational conditions that make those events possible.

If analyses of Trump encourage New Zealanders to believe that the central problem is one unconventional president rather than a much longer history of coercive statecraft, they obscure more than they reveal. The larger consequence here is that opportunities for political imagination are foreclosed in an already intellectually conservative New Zealand.

The most telling lesson Trump’s presidency can teach us ought not to be that normality will return with the next administration. Rather, it should prompt a more searching examination of what that purported normality entails. If the normal condition of international politics remains an enduring reliance upon coercion backed by overwhelming military power underscored by nuclear weapons, then New Zealand, including its academics, should ask whether its own security is best served by accommodating that logic or by investing more seriously in political practices that seek to transcend it.

All previously held assumptions are now no longer relevant

We exist in a time of less safety, growing unfairness, and constant imbalance that we struggle to comprehend and counter. But all is not lost, writes Dr Richard Shortt.



Dr Richard Shortt was a member of the New Zealand Police for 34 years. He served in various roles including in the Combined Threat Assessment Group and Armed Offenders Squad.

First and foremost, congratulations to Line of Defence, and all involved with it, for reaching the 10th anniversary milestone. Well done.

Goodness me, a lot of water has flowed under the proverbial bridge during those 10 years. What was happening back in 2016 that we can reflect upon now a decade later?

Well, front and centre, Donald Trump became president of the United States of America; the United Kingdom voted to leave the European Union; Syria was embroiled in conflict; terror attacks occurred in Nice and Brussels; compliance with a nuclear deal resulted in sanctions being lifted from Iran; CO2 levels exceeded 400ppm for the year, considered one of the hottest on record; and there was a noted rise in popularism around the world. Some nostalgia there!

Since those days, we have endured through a global pandemic; the Americans and their allies withdrawing forces from Afghanistan and handing the country back to the Taliban; Russia launching a full-scale invasion of Ukraine following its annexation of Crimea and insurgency in various Ukrainian border provinces; and climate change accelerating (according to reliable science).

Also, drones demonstrating they now play a pivotal role on modern-day battlefields; spending on defence forces increasing in NATO and non-NATO countries, while Finland and Sweden shed their decades-long neutrality to join NATO; Aotearoa New Zealand suffering terrorist mass-murders of truly staggering proportions, while just recently Australia also suffered terrorist mass murders at its iconic





Bondi Beach; and now we watch a war on Iran by Israel and the US that has seriously constrained a major sea-lane for the delivery of energy and other important products to the world.

And, we must not forget, President Trump is back in office in the US for a second term.

AI is now ubiquitous, and it is thanks to it that in a matter of seconds I was able to provide the opening historical synopsis above. But that's all. The rest – for better or worse – is me.

So, let me ask a question: Where does the world find itself today, and is it now a safer, fairer, more balanced place than it was in 2016?

In responding to the first part of the question, I am reminded of a phrase I read just recently that summarised the situation we are in as “all previously held assumptions are now no longer relevant”. Canada's prime minister and Australia's foreign minister have, along with others, shared similar sentiments. These are big statements, but I feel they are hitting the proverbial nail on the head.

What were some of those assumptions?

For Aotearoa New Zealand and Australia, the answer to the question cannot escape examination of the close intertwining both countries have engaged in with the US. On issues of defence and national security, for Aotearoa New Zealand, this has been a reconnection and rebuilding following the disconnection of the nuclear-free policy impacts of the 1980s, but for Australia the bonds go back to World War II. They are very deep and very complex.

When it comes to alliances and allegiances, my conclusion is that they have been tipped on their head. NATO, the EU, Mexican-American-Canadian trade agreements and ANZUS now appear to be of little importance to some, and in need of complete reconstruction according to others. I am also left wondering about newer alliances, such as AUKUS, struck when the current US regime was not in power, and when the UK was not so focused on the threat from Russia and major conflict

in the Middle East, but more on rebuilding its global standing following Brexit.

The US, under the current administration, is led by a man who delivers ‘flip-flop’ policy via social media, who attacks the foundations of relationships built over many decades, and who has an ego that is in need of constant affirmation and placation. But, he is just the public face of the change. Behind him sit a number of very connected, often very rich and opinionated individuals who are interested in dismantling a world they do not agree with.

Russia has unleashed yet another seemingly unthinkable multi-year war in Europe, all based it seems on ego and enrichment. China continues to build military forces of substantial size and capability that can be viewed as equalling – even confronting at some point – what was once considered to be the most powerful military force the world had ever seen. And North Korea has nuclear weapons, while others aspire to emulate them.

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So, back to the question, are we safer, fairer and more balanced today?

No. I strongly suggest otherwise. The world has become more fragmented with the loss of relationships, alliances, institutions, boundaries, rules and – I would argue – civility. These changes do not support safety. They support cracks and fissures in our world.

There is well supported evidence of untenable behaviours becoming accepted. Behaviours that are highly likely to be viewed by other bad actors as opportunities to undertake or advance changes to their own liking. We also see this trend in the actions and words of those closer to home who seek to gain societal change or political advantage by using social fragmentation to their advantage.

We are, I submit, in a time of less safety, growing unfairness and constant imbalance that we struggle to comprehend and counter. Safety, fairness, and balance (and common truths) come from strong foundations and structures. They come from institutions that are in the business of holding wrong-doers to account, which dedicate themselves to improving all lives, not just some, and which work collectively and collaboratively in those endeavours.

Is all hope lost? No, not at all.

Within the jumble that is our world there are beacons of hope for a return to stability – but a new stability, not the old style. These beacons appear out of the fog of wars and the carnage of discarded and trashed relationships. They are individuals, groups, citizenry, and truly brave souls who are prepared to take stands based on morals and principle; who are prepared to stare down fear and to show that it cannot be successful every time it is rolled out. They speak out against the propaganda and outright lies that are being fed to us

all daily, and they offer alternatives.

Admittedly, we do need to be astute enough to recognise reliable information in today's blizzard of words, images, and memes. A lesson from Finland is worth acknowledging here, whereby schools are actively teaching their students how to sift the information tsunami to identify reliable sources versus rubbish/entertainment/propaganda and outright lies.

We can also see examples of countries banding together to deliver good outcomes not just for themselves but for others too. They show us that might can be steadfastly resisted and stopped. They show us that we need to look to our own inventiveness, innovation, and people to find answers to problems that seem intractable and overwhelming.

The Ukrainians, Scandinavians and the EU all provide examples of such a collective mentality and strength, notwithstanding that they all face challenges and that the road is a bumpy one.

Aotearoa New Zealand and Australia must do the same. We have the bright minds and the capable people we need to achieve this. We have the inventiveness, innovation and capacity to stand steadfast in the face of bullies and events beyond our shores. What we must be prepared to do, however, is to adjust our thinking. "Never let a good crisis (or crises, as the case may be) go to waste", as the saying goes, especially in a time when old assumptions no longer apply.

Both countries can, for example, look at the liquid fuel disruptions caused by the war against Iran and recognise that unlike the 1970s there now exists a proven, efficient and localised energy solution, electrification. The majority of our domestic household, industrial and land transport requirements can be met through smart use of modern technologies, such as solar PV panels (an Australian's invention) capturing

the free, abundant energy delivered daily by a very reliable sun.

Through leveraging other cheap, off-the-shelf energy creation solutions we can reduce our dependence on long, exposed shipping lanes and dangerously exposed power plants and fragile grids. At the same time we also help address the existential threat of climate change, whose more fierce and regular impacts we all feel. We just need to apply ourselves and encourage our politicians to be brave, strategic, and willing to embrace our future, not solutions from the past.

Finally, it would be wrong not to mention the lessons we are learning from the war on Ukraine by Russia. The Ukrainians have shown, and continue to show us, how a land with a smaller population can stand resolutely and defiantly against a larger aggressor.

Their lessons, I suggest, include relationships with diverse partners, not just one. It shows us the volume of materials and equipment needed to sustain prolonged resistance against a brutal invader. It shows us there are no safe zones away from frontlines anymore due to the reach of missiles and drones. It vividly shows us that uncrewed drones on sea, land and in the air help cause losses to an enemy – particularly where military, industrial or energy infrastructure is concentrated or exposed.

Critically, it shows us that localised innovation and creativity is vitally important as the 'old war' fighting equipment we are used to designing, building and deploying is thwarted by cheaper, technology-enhanced systems that were the things of science fiction just five years ago.

The change in battlefield conditions, requirements and approaches arising from Ukraine's resistance to Russia has been truly staggering, but we must also not forget that this war passed its 12th anniversary in February of this year.



The most recent five years of post-invasion warfare can dull us to the true expanse of this conflict. Do Aotearoa New Zealand and Australia have what it takes to stand against such a constant, drawn-out barrage? Do we have the political, societal and industrial resilience to weather such a storm?

Beyond the domains of politics, war and climate challenges, we must also now prepare for yet another great evolution of humanity that will see three elements collide in an epic way. Here I'm thinking of artificial intelligence, robotics and demographics. As populations age, and in some instances shrink, we will see more and more economic opportunities for the young vanish as our new technologies remove the need for agile minds, strong backs and nimble hands. These changes are both an opportunity and threat that our lands must strategically prepare for in ways I currently do not see unfolding.

Our Western economic and cultural systems are based on the concept of meaningful, productive work and social advancement. The belief that 'my child's life will be happier, more fulfilled, healthier and longer than mine' is already fraying at the edges, and appears to be on a path to mythical status. Add to this climate-induced migrations and we have a challenge that the world has not experienced before in our lifetime.

Again, the old assumptions are being seen to no longer apply. New ones must replace them and be continually refreshed and refined.

For example, in the face of climatic changes rendering various populated areas of the world, including some of our Pacific neighbours, unliveable or sustainable, vast numbers of humans will have to move. Oceans, seas, borders, fences and politics will not, I suggest, continue to constrain and shape such movement.

The million-plus Syrian refugees we saw a decade ago fleeing to safer lands in Europe were but a glimpse of how such a wave of movement can overcome borders. Meanwhile, the numerically smaller movements of other refugees in Africa, areas of Asia and the Pacific (i.e. Tuvalu) graphically show us that housing, water, food, sanitation and cultural acceptance will be agenda-topping items in many parts of the world, and old assumptions on how such movements are managed just nostalgic memories in the minds of some.

How will domestic social cohesion survive these impending and, if we agree with the science, accelerating trends? I have no specific answers for this. None. Yet, in comparison to many of the current things that absorb political, cultural and day-to-day bandwidth, these are Everest-sized challenges, not the speed humps we all currently navigate and cogitate over.

In closing, geography and shared history dictate that Aotearoa New Zealand and Australia now exist as close, like-minded neighbours on the cusp of the largest concentration of human beings in the planet's history (Asia), with all of the opportunities and challenges that creates in a politically fractious, technologically changing and climate-challenged world.

The two countries – and peoples – with the greatest personal investment and interest in our future successes are us. Now is the time to emulate the Scandinavian approach of cooperation, collaboration and coordination in aiming for a safer, fairer and more balanced world, leveraging our strengths, diminishing our exposures and capitalising on the need for all humans to dwell peacefully on a planet we cannot realistically leave and for which there is no redundant back-up.

I sincerely wish us all good luck.

Global military spending rise continues as European and Asian expenditures surge

Military spending continued its year-on-year climb in 2025. According to SIPRI, ongoing conflict pushed Ukraine's spending 40% of GDP while European NATO members also posted big increases.

World military expenditure reached \$2,887 billion in 2025, an increase of 2.9 percent in real terms over 2024. Military spending declined in the United States but rose by 14 percent in Europe and by 8.1 per cent in Asia and Oceania.

The top three military spenders—the USA, China and Russia—spent a combined total of \$1480 billion, or 51 percent of the global total, according to new data published by the Stockholm International Peace Research Institute (SIPRI).

Rearmament and heightened insecurity fuel widespread spending increases

Global military expenditure increased to \$2887 billion in 2025, the 11th year of consecutive rises, bringing the global military burden—military expenditure as a share of gross domestic product (GDP)—to 2.5 percent, its highest level since 2009.

At 2.9 percent, the annual spending increase was significantly smaller than the 9.7 per cent increase recorded in 2024. However, this slowdown is largely accounted for by a drop in US military spending. Outside the USA, total spending grew by 9.2 percent in 2025.

“Global military spending rose again in 2025 as states responded to another year of wars, uncertainty and

geopolitical upheaval with large-scale armament drives,” said Xiao Liang, Researcher with SIPRI's Military Expenditure and Arms Production Programme. “Given the range of current crises, as well as many states' long-term military spending targets, this growth will probably continue through 2026 and beyond.”

US spending shrinks as no new military aid for Ukraine approved during year

At \$954 billion, military spending by the United States was 7.5 percent lower in 2025 than in 2024. The drop was primarily due to the fact that no new financial military assistance for Ukraine was approved during the year. This was in sharp contrast to the previous three years, when a total of \$127 billion was approved.

However, the USA increased investments in both nuclear and conventional military capabilities to maintain dominance in the Western Hemisphere and deter China in the Indo-Pacific, which are key goals of the new National Security Strategy.

“The decline in US military expenditure in 2025 is likely to be short-lived,” said Nan Tian, Programme Director of the SIPRI Military Expenditure and Arms Production Programme. “Spending approved by the US Congress for

2026 has risen to over \$1 trillion, a substantial increase from 2025, and could rise further to \$1.5 trillion in 2027 if President Trump's latest budget proposal is accepted.”

Sharp rise in European spending amid war and new NATO spending target

The main contributor to the global increase in military spending in 2025 was a 14 percent rise in Europe to \$864 billion. Spending by Russia and Ukraine continued to grow in the fourth year of the war in Ukraine, while ongoing rearmament efforts by European NATO members led to the sharpest annual growth in spending in Central and Western Europe since the end of the cold war.

Russia's military spending grew by 5.9 percent in 2025 to \$190 billion, giving it a military burden of 7.5 percent of GDP. Ukraine, the seventh largest spender in 2025, increased its spending by 20 percent to \$84.1 billion, or 40 percent of GDP.

“In 2025 military expenditure as a share of government spending reached the highest level ever recorded in both Russia and Ukraine,” said Lorenzo Scarazzato, Researcher with the SIPRI Military Expenditure and Arms Production Programme. “Their spending is likely to keep growing in 2026 if the war continues, with revenues



from Russia's oil sales increasing and a major European Union loan expected by Ukraine."

The 29 European NATO members spent a combined total of \$559 billion in 2025, and 22 of them had military spending of at least 2.0 percent of GDP, according to SIPRI's methodology.

Germany was the largest military spender in the group, with its expenditure growing by 24 percent year-on-year to \$114 billion. Germany's military burden exceeded the 2.0 percent threshold for the first time since 1990, reaching 2.3 percent of GDP in 2025. Military spending by Spain increased by 50 per cent to \$40.2 billion, also bringing its military burden above 2.0 percent of GDP for the first time since 1994.

"In 2025 military spending by European NATO members rose faster than at any time since 1953, reflecting the ongoing pursuit of European self-reliance alongside increasing pressure from the United States to strengthen burden sharing within the alliance," said Jade Guiberteau Ricard, Researcher with the SIPRI Military Expenditure and Arms Production Programme.

"As states strive to meet the new NATO spending targets agreed in 2025, there is a risk that the boundaries between military and other "defence- and security-related" expenditures become blurred, reducing transparency and further complicating the assessment of military capabilities."

Spending in Middle East stable despite ongoing conflicts and regional rivalries

Military expenditure in the Middle East reached an estimated \$218 billion in 2025, just 0.1 percent higher than in 2024. Besides Israel, most of the other major spenders in the region for which data is available increased their spending.

The military expenditure of Israel decreased by 4.9 per cent to \$48.3 billion, reflecting a reduction in the intensity of the war in Gaza during 2025 after the ceasefire agreement with Hamas in January 2025. Nevertheless, Israel's spending remained 97 percent higher than in 2022. Military spending by Türkiye grew by 7.2 percent in 2025 to \$30.0 billion, partly driven by its ongoing military operations in Iraq, Somalia and Syria.

Spending by Iran declined for the second consecutive year, falling by 5.6 percent to \$7.4 billion in 2025. The real-terms decrease was due to high annual inflation of 42 percent, and spending increased in nominal terms.

"Despite the recent conflicts, Iran's military spending decreased in real terms due to economic difficulties," said Zubaida Karim, Researcher with the SIPRI Military Expenditure and Arms Production Programme. "However, official figures almost certainly understate the true level of Iran's spending—Iran also uses off-budget oil revenues to finance its military, including the production of missiles and drones."

Asia and Oceania sees fastest military spending growth since 2009

Military expenditure in Asia and Oceania totalled \$681 billion in 2025, 8.1 percent higher than in 2024—the largest annual rise since 2009. China, the world's second largest military spender, increased its military spending by 7.4 percent to \$336 billion.

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This was the 31st consecutive year-on-year increase as China continued its military modernization drive. A renewed campaign against corruption in military procurement does not appear to have constrained spending.

Japan's military expenditure rose by 9.7 percent to reach \$62.2 billion in 2025, equivalent to 1.4 percent of GDP—the highest share since 1958. Taiwan's military spending rose by 14 percent to \$18.2 billion (2.1 percent of GDP), the largest annual increase since at least 1988, against a backdrop of intensifying military exercises around the island by the People's Liberation Army.

"US allies in Asia and Oceania such as Australia, Japan and the Philippines are spending more on their militaries, not only due to long-standing regional tensions but also due to growing uncertainty over US support," said Diego Lopes da Silva, Senior Researcher with the SIPRI Military Expenditure and Arms Production Programme.

"As in Europe, US allies in Asia and Oceania are also under pressure

from the Trump administration to spend more on their militaries."

Other notable developments

Between 2024 and 2025, military spending by the United Kingdom decreased by 2.0 percent to \$89.0 billion. France's military expenditure rose by 1.5 percent to \$68.0 billion in the same period.

India, the fifth biggest military spender in the world in 2025, increased its military spending by 8.9 percent to \$92.1 billion. Pakistan's military spending increased by 11 percent to \$11.9 billion.

Saudi Arabia's military spending increased by 1.4 percent to reach \$83.2 billion, making it the eighth biggest military spender in the world. Total military spending in Africa increased by 8.5 percent in 2025 to reach \$58.2 billion. Nigeria's military expenditure grew by 55 percent to \$2.1 billion in 2025, as insurgencies and extremist violence contributed to worsening insecurity.

Guyana's military expenditure increased by 16 percent to \$248 million in 2025, fuelled by escalating

tensions with Venezuela over the Essequibo region. Venezuela's military spending remains unknown due to a lack of publicly available data.

In the annual update of the SIPRI Military Expenditure Database, all percentage changes are expressed in real terms (constant 2024 prices). Military expenditure refers to all government spending on current military forces and activities, including salaries and benefits, operational expenses, arms and equipment purchases, military construction, research and development, and central administration, command and support.

Note: SIPRI's methodology for calculating military expenditure differs from that used by NATO. As a result, SIPRI's data regarding military spending and military burdens in NATO members may not exactly match that published by NATO or other sources, which include certain categories of spending not always included by SIPRI.

Longstanding international defence deployments extended

Foreign Minister Winston Peters and Defence Minister Chris Penk announce approval of two-year extensions for five existing international New Zealand Defence Force (NZDF) deployments.

Announced on 16 June, the extensions will apply to United Nations deployments in the Republic of Korea, Japan, and Middle East deployments involving Egypt, Israel, Lebanon, Syria, Jordan, and maritime activity.

“For years, New Zealand has worked with our partners to contribute to international peace and security efforts. As the global security situation continues to deteriorate, we are committed to continuing our longstanding efforts to promote stability in our region and beyond because New Zealand’s prosperity relies on our success,” said Foreign Minister Winston Peters.

Up to 51 personnel will contribute to the United Nations Command (UNC) and its Military Armistice Commission in the Republic of Korea. The NZDF has contributed to the UNC and its Military Armistice Commission since 1998, and this deployment has been extended until 30 September 2028.

The NZDF’s contribution of up to 28 personnel to the Multinational Force and Observers (MFO) has been extended until 30 September 2028. The MFO, based in Egypt’s Sinai Peninsula, supports implementation of the Egypt-Israel Treaty of Peace. New Zealand has contributed to the MFO for more than 40 years.

Up to 14 personnel will contribute to New Zealand’s long-



NZDF personnel in the Middle East. Photo credit: Supplied / New Zealand Defence Force

standing commitments to Middle East maritime security efforts, for a further two years until 30 June 2028.

This contributes to well-established multinational coalitions, supporting efforts to counter smuggling, piracy, terrorism and illegal unregulated and unreported fishing. New Zealand has been contributing to these efforts since the mid-1990s.

New Zealand will continue to contribute eight NZDF personnel to the United Nations Truce Supervision Organisation (UNTSO) in the Middle East for a further two years until 30 September 2028.

UNTSO personnel are deployed across Israel, Lebanon, Syria, Jordan and Egypt, to monitor regional ceasefires, and supervise armistice agreements in the region. New Zealand has contributed to

this mission since 1954, making it New Zealand’s longest-running deployment.

Three personnel, and crews aboard New Zealand air and naval assets will take part in North Korea sanctions monitoring, operating out of Japan, helping to detect activities that contravene United Nations Security Council sanctions. New Zealand has contributed to UN sanctions monitoring – by air and sea – since 2018. This deployment has been extended until 30 September 2028.

“Longstanding deployments like these show our willingness to step up on the world stage and contribute to collective security. They also provide our personnel with opportunities to use their skills and experience and increase interoperability,” said Defence Minister Chris Penk.

The future is not so bright

Traditional siloed approaches to security will not serve New Zealand well in a future characterised by threats that don't play by past rules, writes Dr John Battersby.



Dr John Battersby is a Senior Fellow in the Centre for Defence and Security Studies at Massey University and Managing Editor of the National Security Journal.

The 10th anniversary of *Line of Defence* is a milestone worthy of note for any publication. But for a New Zealand one, which pontoons between the various security niches across the country, accesses the security bureaucracy, engages politicians with an interest in defence and security – and invites academics also into the dialogue – *Line of Defence* has performed something really quite special.

It is fitting then, to mark this occasion, that I offer a challenge to the entire security sector. This goes out to all of you, in every nook and every corner, in every pursuit and every undertaking, in every office, military, naval, law enforcement and intelligence organisation – to everyone state and private – who purports to contribute to the safety and security of New Zealanders.

The time has come to rethink our siloed approach to security, reassess the assumed separateness of the domestic and international dimensions of defending our national interests and understand that we need to evolve our approach in line with the technical and geopolitical tectonic shifts that are occurring right now. The matter is urgent.

For too long we have trusted that God would defend New Zealand by geographically separating us from the troublesome portions of the globe where things are not so peaceful. We have accepted the neo-liberal capitalist business oracles that preach market forces, economies of scale, and 'just in time' supply lines.

Yet, it is often observed that New Zealand produces enough food to

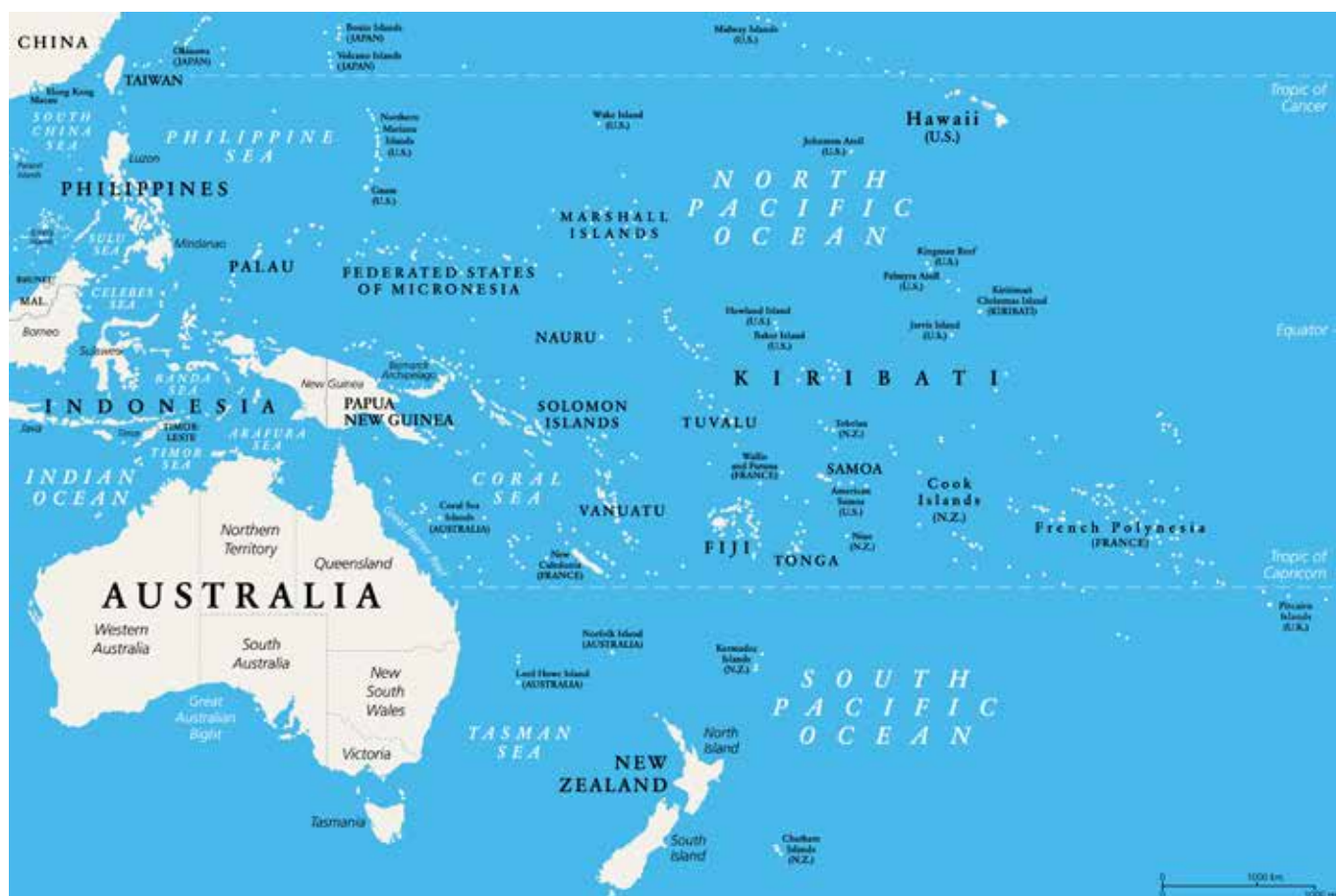
feed 40 million people, but among a mere five million of us, thousands are going hungry. We produce timber in the millions of cubic meters, but we have people without houses. Our mills are closing, we export most of the timber we produce; we are an oil-producing country, but we have closed our only refinery, and we export all we produce.

At the heart of New Zealand is New Zealanders – and we need to put them back at the centre of our country's economic-security-law enforcement solar system.

Our clean green image is little more than a weak public relations wash, because every single commodity we buy or sell is conveyed by fossil-fuel-powered vehicles from field or factory to the shop floor, and from there to our homes. Going electric is hardly a full alternative option in a constantly changing climate, when a huge proportion of our electricity is dependent on regularity of rain and wind, without harmful deluges or storms all too commonly occurring now.

Energy diversity is what we should have been aiming for decades ago, rather than pretending we can, by token actions, make any real difference to global temperatures. It is late now, but not too late for us to focus on building a minimum self-sufficiency in critical strategic commodities and services to manage through the geopolitical storms that are becoming increasingly common in our time.

The post WWII geopolitical tectonic plates have ruptured in the 21st Century. Our oldest friend, the United Kingdom and the



Commonwealth, the glue that took us through two world wars is but a memory now.

Our more recent friend, the United States, has lost its rational mind – its commander in chief now pursues an erratic, directionless and goal deficient foreign policy which has lurched dangerously in less than two years across western and eastern hemispheres. He has imposed tariffs on friend and competitor alike on no reasoned basis and for no tangible benefit to anyone. We simply cannot predict what the US, with Donald Trump at the helm, will do next. We need to start thinking seriously about the implications for New Zealand and the South Pacific of this new impulsiveness in US policy.

The People's Republic of China is an emerging global superpower, likely with little military interest in South Pacific for now. But faced with an irrational and now distracted American hegemon, what will it do next? Will its activities in the South China Sea disrupt sea and air routes

in that region? Will China take Taiwan? If China does – it has to be quick, because an elongated conflict in and around Taiwan will seriously disrupt communications and trade routes New Zealand relies on.

No one knows what a US response will be in a China-Taiwan conflict if it occurs in the next two and a half years. If the US-Iran conflict has proved disruptive, contemplate the effects of a Chinese plan not going well, extending an expected short operation into months of conflict, drawing in regional neighbours and resulting ultimately in a Sino-US conflict raging in the Pacific. This is all conjecture... for now.

Into this regional uncertainty add the criminal use of online technology, the transnational effects of Australia's deportation of criminals to their homelands of origin and the development of illicit submarine drug carriers from Asia and the Americas into the Pacific Islands – and from there to here! This is in addition to

the already occurring infiltration of airline, shipping and port companies, exploiting privileged access to cargoes and baggage handling systems.

Methamphetamine, MDMA and cocaine are consistently detected in New Zealand's wastewater showing that while police and customs are regularly reporting increasing interceptions of contraband, such seizures are likely still within the acceptable-loss limits of criminal enterprises. No one really knows how many firearms enter the country the same way. Gang patches are no longer visible – but gang based criminal activity has not subsided.

Our Pacific Island neighbours lack the policing resources, and in some cases the integrity of their law enforcement institutions, to effectively detect and intercept illicit commodities at their borders.

The challenge for New Zealand is to better integrate its various law enforcement agencies to reduce siloing and eliminate the ongoing

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wastage of money based on tradition and 'doing things the way they have always been done.' We need to project our activity across New Zealand as well as into the South Pacific. We need to better integrate private endeavour into our law enforcement capability to force multiply our effectiveness and we need to aim to actually deter, reduce and prevent illicit activity which is costing our country and harming our people like never before. We need to follow the Insurance Council's advice and move toward being a country that can build resilience to bad weather, instead of being happy simply to clean up after it.

New Zealand has now passed legislation criminalising foreign interference. This legislation portends risks to our democracy at multiple levels, using cultural, educational, government and business vectors to exploit our national security naiveté, our inability to think strategically long-term at almost every level, and our contentment with 'she'll be right' approaches to problems that seem too hard to solve.

But exposing the risk is quite different to mitigating it, and this legislation will not curtail a problem with a vast, grey, no-mans-land between innocent influence and sinister interference potentially overlapping whenever we deal with people from another country.

Conducting business has always been a political activity, especially in a country where trade is our foreign policy. Geopolitical changes globally and regionally bring with them risks in everything we do and now demand that security consciousness and prudence be added to what, too often in the past, has been a tendency to simply follow the dollars. Private enterprise in particular needs to be alert to this risk.

This requirement for prudence is no more evident than in the unbridled promotion across business and government of Artificial



Intelligence to enhance capability, reduce costs, improve production and drive efficiency.

AI is the 21st Century's iteration of the Industrial Revolution, and it heralds a phenomenally different new world. But AI is not intelligent – it does not think... not yet anyhow. It detects what it is directed to look for across vast data sets, and it is fast, doing multiple tasks much quicker than humans can. It has been around for decades, developed in fits and starts, but now likely to progress far more consistently and widely across all manner of applications. There are positive results in medicine and many other research pursuits as a result.

But just like the industrial revolution, splitting the atom, the internet of things and social media – AI's inventors and promoters take no care or responsibility for the more sinister implications of their invention.

While evolutionary technology has always extinguished old pursuits, it has generally offered new ones – AI looks set to buck this trend, potentially removing a swathe of human roles, more rapidly than at any time previously and leaving humans, in many cases, simply redundant. Under threat are not just low skilled jobs, but also creative vocations that humans train for years to do, in law, design, marketing, policy, journalism, and one might even suggest education... but then, why would humans need educating anymore?

Already, globally graduate employment rates are dropping, and

many workforce entry level positions are vanishing. We may already be on a course toward an economically disenfranchised generation with shattered aspirations and this is an ill omen for the future.

Perhaps this is all too cynical. But hope is not a plan and faith in 'she'll be right' is not a strategy. Combine all of the influences discussed here together – geopolitical shifts, major power competition, wars in Europe and the Middle East, a fuel crisis, transnational organised crime, climate change and the AI revolution domestically and internationally – and we have a perfect storm of future uncertainty.

This requires New Zealanders to take stock, decide what it is we need for the long-term safety and security of our country and our people, and we (not AI) need to start talking to each other now. National Security in an age of unprecedented change is too important to leave to bureaucrats in their classified echo chambers, to intelligence agencies, the military or police in their siloed lanes of concern, to single issue activists or to politicians fixated on the latest poll results. The security of the future needs urgent broad span attention.

If we do not take meaningful steps now to control our future, it will be taken out of our hands and in a decade's time we may well be asking why we are unemployed, unskilled, hungry and disenfranchised. And then a robot will answer – that we do not have permission to speak.

This article was not written by AI.



2026 Perceptions of Asia survey surprises

New Zealanders are undergoing a notable shift in how they view the world, with Asia emerging as a central focus of economic, political, and security thinking.

New survey data released by the Asia New Zealand Foundation indicates that public attitudes are evolving in response to geopolitical uncertainty, economic interdependence, and changing regional dynamics.

“The Perceptions of Asia survey has consistently tracked public opinion and knowledge about Asia since 1997,” said the Foundation’s chief executive Suzannah Jessep. “The findings have demonstrated a positive correlation between Kiwis understanding Asia and having confidence to engage and invest in the region.”

The research, published in early June, reveals a growing recognition that New Zealand’s future is increasingly tied to Asia. A majority of respondents now see the region as critical to the country’s prosperity, reflecting longstanding trade patterns but also a deeper awareness of Asia’s strategic weight.

However, the data also reveals a more complex and, at times, ambivalent public sentiment. While economic ties are widely acknowledged as beneficial, there is increasing caution about the political and security implications of deeper engagement.

Concerns about geopolitical tensions—particularly involving major powers such as China and the United States—are shaping public perceptions. New Zealanders appear more conscious of the risks associated with great-power



competition in the Indo-Pacific, even if they do not uniformly agree on how the country should respond.

Interestingly, the 2026 edition found that New Zealanders are more likely to view China as a friend (43%) than the US (39%) – a turnaround from the previous year. Ranking higher than China as ‘friendly countries’ were Japan, Singapore, Philippines, South Korea, and India.

In late 2024, the survey showed 61% of New Zealanders viewed the US as a friend, with only 17% seeing it as a threat.

North Korea ranked highest as a ‘threatening country’ in this year’s survey, followed by Russia, the US, Pakistan, and then China.

“New Zealanders have a wariness about the big powers, that’s a given, and this data is showing New Zealanders are responding to real-world events and their implications

for us and our region, and it also shows a Kiwi public that’s engaged with international developments,” said Foundation research and engagement director Dr Julia Macdonald.

In terms of the threats New Zealanders perceive, the survey indicated that concern about conventional military conflict in Asia has actually fallen. Fake news and misinformation along with climate change were the top threats were of particularly high concern.

“New Zealand is geographically remote from the flashpoints in the Indo-Pacific - the Taiwan Strait, South China Sea, Korean Peninsula, said Dr Macdonald.

“The survey data consistently shows New Zealanders want stronger Asia engagement and are aware of regional tensions, but that awareness doesn’t translate into personal fear of being caught up in conflict.”

Biometric Capability Update Project Failure: Has agnotology prevailed?

The Government can choose to conduct a limited review of culpability around the now infamous Biometric Capability Update project failure or listen to what the experts have been saying for over a decade, writes Jennie Vickers.



Jennie Vickers is an IQM Group Associate and a Member of the World Commerce and Contracting Council of Global Ambassadors. She is a former Chief Executive of the New Zealand Defence Industry Association (NZDIA).

During an early 2026 spring clean, I decided to discard a stack of printed reports and articles that I had once considered important but assumed were no longer relevant. The papers made it as far as the recycling bin, but the bin had not yet left my office, just in case.

More recently, a report authored by Greg James and titled *Review of the Biometric Projects: Biometric Capability Update, BCCU and IPE Projects* ([Greg James Report](#)) was publicly released on 16 June and has [attracted much press attention](#) over recent days.

It is essential reading for anyone with an opinion on New Zealand Government procurement.

Meanwhile, a report I eventually saved from the recycle was one from 2016 titled *Contracting for Success in Complex Projects*. Stemming from a project involving an international panel of project and contract experts, it included recommendations for governments and organisations that, if followed by our government ten years ago, would likely have prevented the catastrophic project failures described in the Greg James Report.

The next step in the Biometric Capability Update (BCU) project saga will be an [integrity review](#) by the Public Service Commission.

I shared the Greg James Report with Tim Cummins, who was President of World Commerce and Contracting (World CC) at the time of the 2016 study and who now also heads up the Commerce & Contract Management Institute, and asked for his thoughts. Tim's response was:

"Ten years ago, the ICCPM (International Centre for Complex Project Management) and IACCM (now World CC), published a report on contracting for success in complex projects. Its findings were presented to governments and public sector bodies around the world. Yet here we are, observing a familiar story play out in New Zealand: a project launched without ministerial sign-off, pivoting in technology approach without due diligence, persisting through multiple red flags, and ultimately delivering nothing after seven years and NZ\$33 million.

"The PSC investigation will focus, as these investigations always do, on individual conduct and governance failure. What it will most likely not address is the systemic question: why do governments keep entering complex commercial relationships without the capability, the frameworks, or the measurement systems to manage them?"



As Einstein famously said, “We cannot solve our problems with the same thinking we used when we created them.” What threshold has to be passed to effect change to the system? Does it need to be even more than the NZ\$33m in public money already wasted, or could this be the catalyst needed for change?

The Greg James Report

One notable omission from the Greg James Report is any direct reference to the New Zealand Government Rules of Procurement.

The [4th edition of the Rules](#) went live in October 2019 (the Biometric Business Case was presented in August 2019). There was substantial comms activity in the years and months leading up to this replacement to the 3rd edition, making it hard to miss.

The 4th edition included a foreword from the Procurement Functional Leader Carolyn Tremain littered with several apple pie statements. We are told, for example, that: “These Rules are essential in reforming government procurement to support broader social, economic, cultural and environmental outcomes, as well as continuing to represent the government’s standards of good practice during the procurement process.”

Further on, the document makes clear that each agency “must have policies in place that incorporate the five Principles of Government Procurement and the Government Procurement Charter. The Principles and the Charter apply to all procurements, even if the Rules do not apply.”

The [five Principles](#) referred to were already in place in the 3rd Edition (i.e. at least since 2015) and they are not complex or difficult to understand:

- Plan and Manage for Great Results
- Be Fair to all Suppliers
- Get the Right Supplier
- Get the Best Deal for Everyone
- Play by the Rules

Yet, they are notable in that the BCU project seems to have disregarded every one of them, and that’s despite the requirement that the Principles be applied to every procurement – even those where the Rules do not apply.

The Greg James Report is thorough, but it does not (possibly due to scope restrictions) contain recommendations that go far enough to prevent this sort of mess happening repeatedly. As Tim Cummins noted above, going after specific individuals will not change the system.

In a ‘Lessons Learned’ section (Page 20), the Greg James Report lists 18 principles that, it states, should be applied to all initiatives by “project leadership and governance”. Virtually all of these principles are already addressed in the Government Procurement Framework.

One further glaring omission from the Greg James Report is the failure to address Contract and Commercial Management as a discipline, distinct from Project Management and Procurement.

The fact that the report refers only to “project leadership and governance” would seem to indicate that the critical role of contract management is still being ignored. ‘Project management’ and ‘contract management’ are not the same things, and they require distinct skill sets.

What does the wider public sector have to say about the need for change?

World CC [issued the report](#) *Public Sector Contracting in Australia and New Zealand: 2025 Benchmark Insights in November 2025*, focusing on public sector contracting in Australia and New Zealand in comparison to other regions.

The World CC Report's introduction notes that there is increased recognition internationally that contracting is no longer an administrative function but that it has become "the backbone of public value delivery". Yet it also notes "fragmentation, inconsistency and capability gaps that must be addressed for it to become a reality".

Respondents to the benchmarking survey rated 'strategic relevance' and 'skills and training' highly as strategic priorities, reflecting, states the report's authors "pressure to deliver greater value", while 'digital strategy' and 'tools and systems' were considered low priority, suggesting "a recognition that clearly defined processes must precede technology implementation."

40% of respondents indicated they would like their organisation to undertake a skills audit or assessment; 57% reported that their function's budget does not include funding for contract management technology; and a whopping 58% showed little or no interest in advanced automation. While the report did show New Zealand ahead of Australia in many areas this is not saying much!

This report would provide relevant background reading for the Public Service Commission team undertaking their review – assuming system change is a desired outcome.

Does New Zealand have the will to change the system?

Without a change of system, it could be argued, based on the information disclosed in the Greg James Report, that many of the report findings could have been avoided, or impacts minimised, if the existing basic requirements around Government procurement and contract management had been adhered to.

The challenge is that with increasingly complex projects on the horizon, will actual compliance be enough?

In carrying out research for the 2016 ICCPM/IACCM report, seven round table events were held across the US, UK, Canada and Australia. Each group discussed a range of questions (Page 69), the answers to which varied depending on the audience and nation. The report authors found much commonality, presenting seven categories of recommendations:

- Contracting for Success in a Complex Project
- A Burning Platform -the Business Case to Invest
- Competence to Lead Complex Projects
- Organisational Maturity to cope with complexity
- Addressing Risk from a Systems Perspective
- Governance in Complex Environments
- A Holistic View

The full set of recommendations, which make for a must-read, should be sufficient to get the ball rolling in New Zealand, if there is a will for change.

Who knew what?

One final feature of the Greg James Report is the issue of who knew the project was in trouble and what was communicated (or not) up the chain.

Tony Ridley (my go-to risk and assurance expert) reminded me about the concept of Agnotology this week and how it impacts risk. As he explains:

"Coined by the historian of science Robert Proctor in collaboration with the linguist Iain Boal, the term derives from the Greek agnosis (not knowing). While epistemology traditionally explores how we come to know, agnotology serves as its shadow, an "anti-epistemology" that investigates how we come not to know—and, crucially, who benefits from that absence of clarity." This is the skill of ignorance.

Ridley describes the managerial superpower of 'not-knowing' and

environments where strategic ignorance is a tool for leaders to preserve plausible deniability as "manufactured confusion and strategic ignorance". It would seem to be relevant to this latest New Zealand complex contract/project disaster.

As Ridley says: "By structuring information flows so that inconvenient facts never reach the top, decision-makers can claim they were unaware of risks, thereby avoiding liability for the resulting harms."

While the Public Service Commission's work might uncover 'who knew what', it is going to take a fundamental change to the system to rid it of agnotology.

Is doing nothing for another ten years an option for New Zealand?

The introduction to the 2016 ICCPM/IACCM report notes that "In the 10 years since the inception of ICCPM we have witnessed an increasing emphasis on improving the delivery performance of complex endeavours". In 2026, it is now at least 20 years since these issues started to be debated.

I am wondering if we will still be having the same discussion in another 10 or another 20 years. Tim Cummins' comments to me suggest that this may well end up being the case:

"Our forthcoming research on outcome-based contracting surfaces exactly this pattern - an excess of attention on symptoms, project by project, and almost none on the underlying policy and institutional design that makes failure this predictable. Until governments develop and position commercial and contract management as a genuine discipline rather than an administrative oversight, no integrity probe will break the cycle, and underlying policy will remain unchallenged."



Emergency management technology upgrade earmarked for Budget 2026

The Government has announced new investment in emergency management systems through Budget 2026, aimed at improving response times, coordination.

Emergency Management and Recovery Minister Mark Mitchell said the funding will address current limitations in how emergency management data is collected and shared, noting that existing systems are fragmented and can delay access to critical information.

“This investment will ensure faster, more effective response and recovery, better situational awareness and coordination across agencies, and reduced harm to New Zealand communities from hazards such as storms, floods and earthquakes,” said Mr Mitchell.

Central to this is the delivery of modern technology platforms that will enable the development of a Common Operating Picture (COP), which will provide emergency personnel with a shared, real-time view of information such as hazard maps, evacuation data, infrastructure status, population distribution, and available resources.

The COP is designed to ensure that personnel across agencies and locations have access to consistent, up-to-date information, supporting decision-making before, during, and after emergencies.

The COP forms part of the broader Emergency Management Sector Operational Systems (EMS-OS) programme. In addition to shared situational awareness, EMS-OS will introduce tools to

support operational tasking, inter-agency collaboration, and resource management throughout response and recovery phases.

The programme also includes upgrades to the National Warning System, with the aim of improving the speed and accessibility of public alerts during emergencies.

The Government has indicated that EMS-OS will explore the use of automation and artificial intelligence to assist in processing large volumes of information during major events. Potential applications include the analysis of satellite imagery and spatial data following earthquakes, floods, or severe weather.

“For example, after a major earthquake, flood or severe weather event AI-assisted analysis of satellite imagery and spatial data could help identify areas where buildings, roads, bridges, or other critical infrastructure may have been damaged,” said the Minister.

Such analysis could assist responders in identifying impacted areas, prioritising ground assessments, and informing decisions related to access, welfare, and recovery planning.

The country’s exposure to natural hazards, including earthquakes, storms, and flooding, has been cited as a key driver for the investment. The Government expects the new systems to improve situational



Emergency Management and Recovery Minister Mark Mitchell

awareness, enhance coordination across agencies, and support more effective response and recovery efforts.

The EMS-OS programme sits alongside other planned reforms, including the proposed Emergency Management Bill and the Strengthening Emergency Management Roadmap, which Cabinet has agreed to in principle.

According to the Government, the combined programme of work is intended to strengthen the overall emergency management system and improve the country’s ability to respond to and recover from major events.

The Camera is not the Country

There are a range of objective considerations that procurement teams should subject any CCTV camera to – no matter its country of origin, writes Tara Pulawski, Managing Director of Cyntion.



Tara Pulawski is Managing Director at Cyntion, an operational intelligence platform provider. Having worked in electronic security for three decades, she specialises in software, AI and technology Development.

Country of origin is a poor shortcut for judging a camera. Firmware quality, construction, support, network behaviour and real-world performance matter far more.

Ask a group of security installers about Chinese cameras and the discussion usually becomes political before it becomes technical. One side sees cheap hardware, opaque cloud services and firmware assembled with all the elegance of a banana on wheels.

The other sees enormous manufacturing capability, aggressive pricing and products that often do the basic job perfectly well.

Both sides can produce examples. Neither side, by itself, has a procurement method.

The market is not East versus West

The camera industry does not divide neatly into East and West. It divides into engineering tiers.

At the bottom are products built almost entirely to meet a price point. They often reuse common system-on-chip platforms, inherited software libraries, reference designs and outsourced development. Support can be thin, documentation can be worse, and the product may effectively stop evolving once the shipment leaves the factory.

At the top are products with controlled firmware, better environmental testing, documented security processes and support that continues after the invoice is paid. Between those extremes sits most of the market, regardless of where the company is based.

The useful question is not “East or West?” It is: what evidence shows that this exact product, firmware branch and deployment design are fit for this exact job?

Firmware from another era

Some camera interfaces still feel as though they were preserved in amber. Configuration pages depend on proprietary Windows tools, browser compatibility modes or plug-in technology descended from the ActiveX era. The interface may look like 1991, but the real problem is not the colour scheme.

Legacy plug-ins expand the trusted software running on an administrator’s computer, create compatibility problems and encourage people to weaken browser security just to configure a camera. A modern sensor wrapped in an old management stack can also contain outdated web libraries, weak session handling, unsafe input processing, hidden service accounts and update mechanisms never designed for hostile networks.

Public advisories and independent security research repeatedly show the same failures across network-camera products: hard-coded credentials, authentication bypass, command injection, exposed maintenance services, memory corruption and insecure firmware updates.

Some of these flaws are severe enough to allow remote compromise. Others turn cameras into convenient footholds for botnets or lateral movement into the wider network. This is not theory. It is a recurring industry pattern.



When the camera phones home

Put a packet capture beside many modern cameras and they will attempt outbound connections almost immediately. Installers often call this “ET calling home”.

Sometimes the reason is legitimate. Cameras use dynamic DNS, time synchronisation, licence checks, mobile push notifications, peer-to-peer remote viewing, firmware updates and cloud registration. High-numbered ports are also normal in peer-to-peer and NAT traversal systems.

Traffic to a Chinese server, or any foreign server, does not by itself prove a backdoor. It proves that the device is communicating with infrastructure outside the local network. That still deserves scrutiny.

The customer should know what data leaves, where it goes, who controls the service, what commands can be sent back, how authentication works, whether the feature can be disabled and what happens when the vendor stops operating the platform.

Peer-to-peer camera services are particularly awkward. They solve a real usability problem by connecting mobile applications to devices behind NAT without manual port forwarding. They also create a trust chain involving vendor servers,

device identifiers, shared secrets and proprietary protocols. When that design is weak, server impersonation, traffic interception or full device compromise can follow.

The right response is not blind trust and it is not theatrical panic. It is network segmentation, egress control, DNS logging and verification. A camera should normally sit on a restricted network with only the destinations and protocols it genuinely needs.

A lack of security understanding at product level

One of the more worrying field observations is not a single vulnerability. It is the apparent lack of basic security understanding inside some product and research teams.

Representatives may be unable to explain whether encrypted communications use current Transport Layer Security (TLS), how certificates are validated, whether cloud traffic can be disabled or how credentials are protected.

Confusion between Secure Sockets Layer (SSL) and TLS is not harmless when it comes from people responsible for a connected security product.

SSL has been obsolete for years. In 2026, a manufacturer should

be able to state exactly which TLS versions are supported, whether certificates are validated properly, how keys are protected and whether management, streaming, metadata and update traffic are encrypted.

The same problem appears in analytics. Manufacturers advertise artificial intelligence, deep learning, cognitive processing and intelligent recognition, while technical representatives sometimes cannot explain whether the product uses a trained machine-learning model, conventional computer vision, optical character recognition, rule-based processing or a mixture of these.

Customers do not need proprietary source code or model architecture. They do need a technically coherent explanation of the processing pipeline, validation method, known limitations, false-positive behaviour, update process and required image conditions.

When a manufacturer cannot say whether its analytics use machine learning or OCR, the problem is not secrecy. The problem is that the product may not be properly understood by the people selling it.

The same brain under different badges

Another repeated observation is the

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striking similarity between products sold by supposedly competing Chinese brands.

APIs can use almost identical command structures, configuration fields, error responses and undocumented behaviours. Web interfaces and firmware packages may contain matching terminology, folder structures, libraries and even the same implementation mistakes.

There are legitimate explanations. Manufacturers may use the same chip reference design, software development kit, original-design manufacturer, analytics engine or outside contractor.

Staff and intellectual property may move between companies. In a market built on intense price pressure, direct copying is also possible.

From the outside, this can look like internal industrial espionage or uncontrolled copying. Similarity alone does not prove how the technology was obtained, so accusations need evidence.

It is also reasonable to ask whether state-backed research, public procurement, industrial policy and technology-development programmes contributed to common technical foundations during the industry's rapid growth. China has openly used these mechanisms to accelerate strategic industries.

Firmware similarities alone do not prove that the state supplied a common camera platform. The more defensible conclusion is that shared reference technology, public investment, common suppliers and aggressive imitation may all have played a part. The visible result is an industry where supposedly separate products can sometimes appear to share the same brain.

International products with local-market language

Broken English, inconsistent terminology, half-translated interfaces and leftover Chinese

text remain common in products sold internationally. That may have been understandable when low-cost manufacturers first entered overseas markets. It is not acceptable in 2026.

Documentation and interface language are not cosmetic. They affect security configuration, alarm handling, firmware recovery, privacy settings and an operator's ability to understand what the device is doing.

A badly translated option can reverse the apparent meaning of a control, hide a cloud dependency or cause an installer to leave an insecure service enabled. Manufacturers selling internationally should use professional technical translators and validate the wording with engineers and experienced operators.

The better Chinese manufacturers are improving rapidly. Some now provide credible documentation, international support teams and mature interfaces. Others still behave as though overseas customers should reverse-engineer the product after purchase.

Construction: the specification is not the enclosure

Firmware is only half the camera. Outdoor reliability depends on enclosure design, gasket compression, cable-entry geometry, membrane vents, fastener quality, corrosion protection, thermal cycling and installation practice.

A printed ingress-protection rating describes performance under a defined test condition. It does not guarantee that every production unit was assembled correctly, that seals will survive years of ultraviolet exposure, or that the installer will preserve the rating after terminating a cable.

At the lower end of the market, cost reduction can become painfully visible: thin castings, inconsistent gasket seating, poor cable glands, unprotected connectors and screws that corrode before the camera has earned back its installation labour.

Major manufacturers are not immune. We have seen condensation and water ingress in products carrying well-known names. A large logo does not stop water.

These claims should be backed by field evidence, service records, photographs and failure rates rather than treated as a universal feature of any country.

The economics are simple. A cheap camera may be perfectly sensible indoors, under shelter and within easy reach. The same camera can become a very expensive mistake on a coastal pole, above a fuel forecourt or at a remote site where the service visit costs more than the hardware.

The analytics gap

The newest sales language is no longer about megapixels. It is about intelligence: people detection, vehicle classification, face matching, intrusion zones, queue analysis and behaviour recognition. These functions can be useful, but the gap between a polished demonstration and a live site can be brutal.

Analytics depend on the pixels given to them. Low resolution, motion blur, bad lighting, arbitrary pose, poor camera angles, long distance, occlusion and dirty lenses all reduce performance. Rain droplets, infrared reflection, a slow shutter, heavy compression and excessive digital noise reduction can defeat an excellent algorithm.

This is why cognitive performance should be tested at the actual site, at night, in bad weather and with normal human behaviour. A daytime demonstration clip proves very little.

Poor analytics are not uniquely Chinese. Cheap edge processors may force simplified models, but expensive Western products also generate false alarms when the scene is badly designed or the settings were tuned for a brochure rather than operations.



The correct comparison is measured detection performance, missed events, false alarms and processing delay under the buyer's actual conditions.

The Western mirror

The strongest argument against nationality-based procurement is the record of the wider technology industry.

Major Western network and security vendors have released products with critical authentication bypasses, hard-coded credentials, remote-code-execution flaws and vulnerabilities that were actively exploited before many customers patched them.

Premium camera brands can also ship fragile firmware, broken upgrades, browser incompatibilities, licence problems and cloud outages. They can produce terrible night images when the lens is dirty, the infrared reflects from the dome, the shutter is wrong or the camera angle is useless. A premium logo cannot recover detail that never reached the sensor.

What mature suppliers more often provide is not perfection. It is process: clearer support ownership, published advisories, signed updates, longer firmware maintenance, documented hardening and a credible organisation to call when something goes wrong.

Those things have real value. They should still be verified rather than assumed.

There is more than one Chinese camera industry

"Chinese camera" describes a country of manufacture, not one engineering culture.

The category includes anonymous white-label products, original-design manufacturers selling the same platform under dozens of names, enormous vertically integrated suppliers, specialist industrial manufacturers and newer companies



deliberately moving toward international security and usability expectations.

Some products are genuinely a mess: recycled firmware, questionable cloud dependencies, poor documentation and mechanical shortcuts.

Others are moving closer to Western standards and, in some functions, may already outperform established competitors. The market is allowed to contain both facts at once.

Value is a system calculation

A camera costing one quarter as much is not automatically better value. A camera costing four times as much is not automatically four times better.

Value includes installation labour, configuration time, cyber controls, replacement visits, firmware maintenance, image usability, integration effort, storage efficiency, licence cost and the operational consequences of missed or false events.

For a low-risk indoor application, a basic camera on an isolated network may be completely rational.

For evidential identification, critical infrastructure, biometric processing or a remote coastal site, the requirements should be much higher.

Procurement becomes sensible when the risk class is defined before the brand shortlist.

The better procurement question

The East-versus-West argument is attractive because it replaces investigation with a label.

It does not tell us whether the camera supports secure updates, whether cloud access can be disabled, whether the enclosure survives the site, whether the night image is usable, whether the analytics work or whether anyone will still issue firmware in five years.

Country of origin may still matter for supply-chain policy, legal obligations, data jurisdiction or geopolitical risk. Those are valid considerations when they are stated honestly. They are not a substitute for technical testing.

The right camera is the one that fits the solution. Test the product, constrain the network, verify the image, understand the cloud path and price the entire lifecycle.

Final thought

Chinese manufacturers deserve criticism where the engineering is poor, the security model is weak, the translation is broken or the cloud behaviour cannot be explained. Western manufacturers deserve the same treatment.

The industry improves when buyers stop purchasing mythology and start demanding evidence.

In the end, country of origin does not dictate quality. Many Western-branded cameras are manufactured in China, often using the same factories, components and supply chains as local brands. What should determine the choice is the quality of the finished product, the clarity of its documentation, the strength of its support, the security of its design and the transparency of the manufacturer.

The right camera is not the one with the right flag on the box. It is the one that is fit for the application, properly supported and honest about how it works.

New border security funding for Customs

Budget 2026 includes investment in security of airport customs areas, defensive equipment, training for staff, and more capacity to store and manage seized illicit goods.

“New Zealand and the wider Pacific region are being targeted by transnational, serious and organised crime groups and we need to continue to respond,” said Customs Minister Casey Costello in announcing the new Budget funding.

“The danger is clear and very present, with increasing seizures of illicit drugs and black-market products like tobacco at our border and offshore,” said the Minister.

“In 2025, Customs seized nearly 15 million illegal cigarettes and eight tonnes of illicit loose tobacco at the border. This year has also seen a marked increase in the volume of illicit drugs intercepted in the Pacific through agency and international efforts. In the first two months of 2026 more than 14

tonnes of cocaine was seized in the Pacific region.

The funding in Budget 2026 supports two key initiatives, one focused on strengthening the domestic border and the other on improving New Zealand’s offshore capacity and relationships. \$70.7 million over four years will be invested in:

- Upgraded and additional cargo X-ray equipment
- Strengthening the security of Customs facilities and Customs Controlled Areas in ports and airports
- New defensive equipment and enhanced training for staff
- Increased capacity to store and manage seized illicit goods.

The \$70.7m includes \$15.3m in new operating funding and \$19.5m in new capital funding over four years, plus \$35.9m from third party revenue, recognising that criminal groups leverage legitimate trade routes for their activity.

The second initiative expands Customs’ ability to disrupt criminal networks overseas by establishing four new international posts in the Pacific, South America, Middle East and Europe, and supporting these with additional intelligence and analytics support.

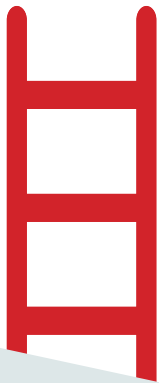
\$10.8m will be provided over four years for this initiative. The new funding includes \$5.6m in new operating funding and \$5.2m in third party revenue over four years.

“New Zealand Customs’ international liaison posts are key conduits for establishing and strengthening relationships that provide valuable intelligence and coordination for border security and trade facilitation,” said Minister Costello.

“Customs work is always about supporting our exports and trade and protecting our border. The new international posts will enhance that work and are being established in locations that have key strategic value.

“Their establishment will be phased in over the four years with officers stationed first in the Pacific and South America, in response to a significant increase in drug-smuggling through those regions.”





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