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EXAMPLE SOURCE

OUR MISSION

The RNZAF will provide New Zealand with relevant, responsive and effective Air Power to meet its security interests.

OUR VISION

An agile and adaptive Air Force with the versatility essential for NZDF operations.

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• photos provided separate from the text – at least 300dpi.

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First Word



B | GROUP CAPTAIN
Y | CATHERINE MACGOWAN

"Our missions and successes, our mis-steps and heartbreaks, are all part of the history of the RNZAF, Te-Tauaarangi-O-Aotearoa."

hen we publish this magazine, we are connecting with our Air Force family through our stories. That whānau includes those of us who currently wear the uniform, but those who have in the past, or hope to in the future, as well as friends and loved ones, and our communities at home and abroad. We are also preserving the stories of our adventures and our day-to-day activities as part of our history, so with a bit of luck we are contributing to laughs at future reunions and perhaps some school research projects.

My family history with the RNZAF started in 1952 when my late maternal Grandfather emigrated from England. Coming from the Fleet Air Arm, he joined the RNZAF as an Airframe Tradesman, serving for 24 years before retiring to join Mount Cook Airlines. In 1972 my father joined to start a career filled with adventures, including as a UH-1H Huey pilot on No. 3 Squadron. By the time I joined in 1999, the RNZAF looked very different to the one that my Grandfather had joined. Our experiences of service across three generations are very different, and these are still barely a tiny fraction of the stories that fill the official records, log books, and unofficial histories of the RNZAF.

These stories and connections are more important than ever when things are challenging, and especially when there are less opportunities to meet in person. They remind us that despite the things that change, and the fact that we are spread all over the world, we belong to each other.

It's wonderful to hear that even in a busy year doing important work supporting New Zealand's response to Covid-19, we are still out there in our communities, and conducting operations overseas in support of our national security interests. If you are reading this from a Managed Isolation Facility, hopefully these stories will let you look inside our world, and take you on a little adventure for just a short while!

Together we are always building a future that will bring us new stories. In the years to come we will have modern aircraft, evolving missions, and a mix of familiar and unexpected challenges. To face this future we will need to listen to our history, and understand how we faced challenges in the past.

We will also need to open our minds and our hearts to new stories, that come from new ways of thinking and of seeing the world. That's the wonderful thing about stories – there is always room for more.

I can't wait to read the stories that are yet to come. But we know that there will still be stories like the ones in these pages – of hard work and challenges overcome, of missions at home and abroad, of innovation, and of family.

Thank you for reading our stories.

Training for combat

WORDS REBECCA QUILLIAM PHOTOGRAPHY CPL DILLON ANDERSON

Under the cloak of darkness a C-130 Hercules crew are training in tactical flying around the top of the South Island and bottom of the North Island. Dropping in steeply to small, unfamiliar airfields and leaving quickly was the hallmark of the exercise and surprising locals who were unused to seeing the transport aircraft in their region.









Based out of
Woodbourne, the flights,
mainly done after dark,
were to simulate a
tactical environment
where lighting was low
or it was imperative to
be in and out as fast as
possible.

he crew flew on night vision goggles and also used the opportunity to practice air drops during day and night flights.

"We would use night vision goggles in a tactical environment, overseas on operations if we needed to get to an airfield that didn't necessarily have any instrument approaches, or if the weather was bad. They allow us to get lower and closer to terrain than you would be able to at night normally," C-130 co-pilot Flying Officer (FGOFF) Seth Fagan said.

"We use the goggles along with a whole lot of map planning in order to get as low as possible in order to spot the airfield, which then allows us to conduct an approach into the airfield in a way that keeps us undetected and minimises time spent in a weapons engagement zone."

The crews were practicing around New Zealand in small aerodromes in towns including Masterton, Westport, Hokitika, and Nelson, which would not normally be used by the hulking aircraft at night.

"We're looking for small aerodromes that don't have a lot of lighting from a city or at the aerodrome itself, so we can practice picking up an aerodrome on the goggles and flying into it."

The exercise also allows the crews to practice steeper and faster approaches to the runway than would normally at night, FGOFF Fagan said.

"It's all designed to effectively get into a place as fast as possible and to not go over the same part of the ground more than once."

The airdrop training is to prepare for a variety of scenarios, including in combat areas or on humanitarian aid and disaster relief missions, where landing in a disaster zone might be impossible.

"We might need to do an air drop at night and there are a lot of planning considerations around that. Part of it will be looking at a map and assessing the terrain and the heights of the terrain and seeing how low we can get safely to then drop at that height. Using the goggles adds a whole other level of complexity to an already quite dynamic phase of flight."





C-130 air loadmaster Sergeant (SGT) Matt Roberts said the exercise is a culmination of training he had been doing over the past few months.

"My instructors provide real-time feedback to me throughout to ensure that what I'm doing is in accordance with our publications, manuals and standard operating procedures; as well as looking to see that I'm operating safely in the sky."

The immediate feedback was helpful, because, even though SGT Roberts was undergoing training, he was confident that if he was to make a mistake, the instructors were there to take control of or guide him through rectifying the situation if need be.

The flying can be a bit rough on a passenger's system, but SGT Roberts said they are secured to the paratroop doors, so they have visual cues from seeing outside, which helps give a sense where the horizon is.

The challenges at night using the goggles are just moving throughout the cargo compartment, because there are a number of hazards, he said.

"There are rollers on the floor which are trip hazards. When we use the goggles they are set so we can see out the window to the ground and everything is in focus for that distance. But when we look inside the aircraft, everything is blurry, because of those long-distance settings.

"But we are able to just lift the goggles up if we need to move around."

The flights were challenging, but FGOFF Fagan said you couldn't beat them.

"They are really fun. It's why I joined the Air Force, to do this kind of flying, because you don't get it in the civilian world."

LEFT

Practice loading equipment during night training

MIDDLE Combat flying training using night vision goggles

Navigator, FLTLT Juliet Urlich and pilot, FLTLT Max Longdill during flight planning





Celebrating 20 years protecting Pacific waters

The Air Force has been helping to protect more than six million square kilometres of Pacific waters from illegal fishing by taking part in Pacific Islands Forum Fisheries Agency-led operations, Tui Moana, for the past two decades.

he regional fisheries surveillance operation covers the Exclusive Economic Zones of Cook Islands, Fiji, Niue, Samoa, Tokelau, Tonga and Tuvalu as well as associated high seas.

Pacific Islands Forum Fisheries Agency (FFA) Director of Fisheries Operations, Allan Rahari said over the past 13 years of his involvement, he had seen a real evolution in how they respond to illegal, unreported and unregulated fishing.

"We see less 'dark', or unlicensed, vessels but are responding to more issues around licensed vessels contravening their conditions, especially through misreporting and underreporting their catches and through unauthorised transhipment."

FFA's Director General, Dr Manu Tupou-Roosen acknowledged the importance of Pacific collaboration in securing the region from illegal activities.

"The strength of our partnerships has been especially notable and enhanced during the Covid-19 crisis."

Despite those challenges though, five Pacific patrol vessels participated in Operation Tui Moana recently, alongside a P-3K2 Orion.

The P-3K2's Tactical Coordinator, Flight Lieutenant (FLTLT) Callum Johnston said part of their job was to be in contact with the vessels in the area. On the latest mission, they spoke with French and Cook Islands' patrol vessels about fishing vessels that should be approached.

"I believe the illegal fishing has dropped off a lot over the past few years. It's very rare for us to encounter it at all. I put that down to a bigger presence in the Pacific – it's about people being aware that we will be out there and we will be checking."

P-3K2 pilot FLTLT Trent Stevens said once suspicious vessels were detected by the aircraft's radar system, they would fly to the area and take a low flight over the vessel.

"We fly about 300 feet above the vessel and that gives us a good opportunity to take photographs of it, which are analysed later. The low-flying also has a really good deterrence effect.

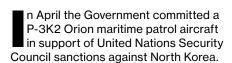
"It's really rewarding knowing we've done a good job and made a difference."

FFA conducts four operations every year and Tui Moana is the second this year. FFA has been providing surveillance support to the Pacific region for 42 years.

Traditionally Pacific QUAD partners, Australia, New Zealand, France and the United States, provide support through aerial and surface surveillance, alongside the FFA Aerial Surveillance Programme aircraft and Pacific Island country patrol boats.

Sanctions enforcement deployment success

Air Force personnel working as part of international sanctions enforcement against North Korea have detected and reported illicit ship-to-ship transfers and vessels of interest.



The sanctions are intended to persuade North Korea to denuclearise and abandon its ballistic missile capabilities. The recent deployment followed previous deployments in October 2020, October 2019 and September 2018.

During patrols, aircrew on the P-3K2 locate vessels of interest with the aim of detecting violations of the sanctions such as illicit ship-to-ship transfers of restricted goods such as oil, coal and iron ore.





Commander Joint Forces New Zealand Rear Admiral Jim Gilmour said the surveillance patrols, which were part of coordinated sanctions enforcement efforts with international military partners, had been successfully completed.

"Our crews successfully located vessels of interest and observed potential illicit activity. Missions such as these demonstrate New Zealand's commitment to supporting and upholding the rulesbased international order," he said.

Air Component Commander Air Commodore Shaun Sexton said the patrols were flown over international waters in North East Asia. "Our P-3K2 aircraft and the personnel that operate and support them, are extremely well suited to this mission. Air Force people welcome the opportunity to make an important contribution to sanctions monitoring by providing information on potential breaches that can be used by the international community."

The aircraft was based at Kadena Air Base, Japan, during the deployment.

Personnel undertook Covid-19 quarantine requirements in Japan and on their return to New Zealand.





"A small creek was transformed into a gigantic river and the big rivers were just completely swollen and angry. A lot of stopbanks had broken and the water was just everywhere."

- Flight Lieutenant George McInnes

LEFT

Supplies being delivered to stranded Canterbury residents

TOP RIGHT

An NH90 coming in for the first rescue attempt of Mr Millar

Photo: Coast Guard

ВОТТОМ RIGHT

Raging floodwaters cut off Canterbury roads

he extreme weather event caught many locals out as stopbanks burst after creeks distorted into raging rivers. Roads that were dry and safe were quickly swallowed by the torrent of water that flowed across the region.

In the space of two to three days, two to three months' worth of rain saturated Canterbury.

Flooding across the region was immense and its residents were in dire need of help fast. The Defence Force was called in and quickly sent in soldiers, trucks and an ambulance from the New Zealand Army's 3rd Combat Service Support Battalion based at nearby Burnham Army Camp.

Two NH90 helicopters and crew were flown down and there were also personnel in headquarters command and control roles, and liaison officers in Ashburton, Timaru, Waimakariri and Selwyn emergency operations centres.

The amount of rainfall in those few days was 200% to 400% more than May's monthly normal rate, NIWA said. In a tweet, the Institute said Lismore, near Ashburton, received 288mm of rain in 2.2 days – the same amount it had received in the previous 187 days.

The lightning-pace change of conditions caught out three motorists and put their lives in immediate danger, resulting in an NH90 rescue mission that saved their lives.

Flight Lieutenant (FLTLT) George McInnes was piloting one of the NH90s when calls came through that one man was trapped up a tree as river waters were rising and another pair were stranded in their ute after a stopbank burst and their vehicle was swallowed by the torrent and swept off the road.

The crew's initial job was to help 54-year-old Johnny Millar, who had climbed for safety up a tree after abandoning his vehicle when the Hawkins River flooded the road near Darfield. It was night and pitch black, but he was able to put a couple of calls in to his friend for help before his cellphone died.

River levels were rising, but FLTLT McInnes said after discussion with the aircrew, it was decided it would be too dangerous for them to attempt the rescue, because Mr Millar was under branches of the tree – however he seemed safe at the time. A sudden rise in waters resulted in a rescue attempt, but they were unfortunately unable to reach Mr Millar.





"Then the second job came through as a priority task out near Ashburton Forks near Methven for two people trapped in a vehicle," he said.

"So we told the search and rescue controller we would head off to the other task. We started flying to the next job and were only airborne for a minute or two when Mr Millar ended up in the river. The water had risen fast to above the man's feet and he was pretty weak at that point and getting hypothermic.'

Mr Millar later told media he had decided to attempt to swim to the safety of rescuers on a bank about 40m away, but the river took hold and swept him away.

"We got a call to come back urgently. So we turned around and saw 10-15 torches running along the banks and scanning the river," FLTLT McInnes said.

By this time it was about 10.30pm and the crew was working with night vision goggles. After about half an hour of searching Mr Millar was spotted clinging to a branch with his head above the water.

He was seen by a loadmaster not wearing the night vision goggles, but could see the colour difference between the water and Mr Millar's head.

"We had a problem because he was holding onto a branch and was not able to put the rescue strop around him if we winched it down," FLTLT McInnes said.

"We got our winch person down there relatively quickly, because we could see the man wasn't going to be able to hold on for much longer and there was not much between the branch and continuing down that river.

"Our loadmaster was winched down to him in the water and the man was able to get his arms up to his elbows in the rescue strops and then the loadmaster just bear-hugged him while we picked them up and flew them over to the bank. It took an enormous amount of strength for him to do that.

"We dropped them down and the man was swarmed by rescuers. We winched the loadmaster back up and we got on with the next job," he said.

The crew then rushed to the other rescue site, which had already been logged as a priority, "so we knew it was pretty bad".

The situation was also too dangerous for one of the crew to be winched to the vehicle, which was becoming unstable in the flood, FLTLT McInnes said.

"We contacted the police and they phoned the stranded men to explain how to put the winch strop on. We winched the strop down and they hooked themselves up and one at a time we flew them out

"One of the men had jumped into the water, so we picked him up downstream. In all three cases we winched them across, not far above the water, to the bank."

The rescues were within, but on the limits of, what the crew could do in the dark, in atrocious weather conditions and quickly changing conditions. In both situations, the rescued people were met by police, fire and emergency, and ambulance staff once safely on the ground.

The night of the rescues the rivers and creeks were raging, FLTLT McInnes said.

Two days later FLTLT McInnes was flying Prime Minister Jacinda Ardern around the devastated area and could see the full extent of the damage.

"We flew up around the Lees Valley and there were no bridges. They were standing, but were completely wrecked.

"We also did some flights down to Timaru to move engineers into the area as well as taking supplies and Civil Defence personnel into the Lees Valley, because they were completely cut off," he said.

"I'm really proud of the team - they dug really deep under some pretty trying circumstances."



"I'm incredibly proud of the team. The great thing about this rescue was there was some very sound decisionmaking and when the situation changed, their ability to quickly develop and execute a plan to save a man's life - I think it's outstanding."

- Squadron Leader Chris Ross

LEFT

Supplies being delivered to cut-off communities

TOP RIGHT

Flying Emergency Management teams to the affected areas

BOTTOM RIGHT

Supplies being delivered to cut-off communities

No. 3 Squadron Flight Commander Squadron Leader (SQNLDR) Chris Ross said the approach the NH90 crew took for the rescues was very considered and deliberate.

"We had the right combination of crew and experience, especially FLTLT McInnes who had previously piloted rescue helicopters in Canterbury, which gave him a set of skills that evening, which meant he was the perfect man for the job."

The first rescue ended up being a dynamic situation with things changing so quickly and it became an immediate danger to life.

"This is where the on-the-spot decision-making came into play," SQNLDR Ross said.

The second rescue was also remarkable, he said.

"There were two elderly gentlemen, sitting chest-deep in water in their truck. They were caught in flooding from a creek normally 5m wide that became a 300m-wide torrent that cut through hedges, fences and farmland."

The rescue also took a fair amount of considered decision-making alongside coordination with the New Zealand Police to relay messages to the people in the vehicle, he said.

Over the course of the deployment, Defence Force personnel assisted in the evacuation of more than 50 people from their homes in support of Civil Defence and Emergency Management, NZ Police and Fire and Emergency New Zealand.

Army Liaison Officer in Ashburton, Captain (CAPT) Jake Faber, said Defence Force personnel had worked late into the night to ensure residents affected by the floods were brought to safety. They were continuing to provide support where needed.

"Seeing the community overnight pull together and support the displaced residents who were evacuated from their homes has been heartening."

"New Zealand Defence Force vehicles have been critical in evacuating residents from inaccessible locations and adverse conditions where residents were deemed not safe," CAPT Faber said.





BY THE NUMBERS:

The New Zealand Army had 16 vehicles and 31 personnel in the following locations:

ASHBURTON

17 personnel, 7 vehicles (including Unimog, HX58 and a LOV ambulance) 24 adults, 6 children, 6 dogs, 6 cats evacuated

TIMARU

6 personnel, 4 vehicles 6 adults evacuated

WAIMAKARIRI

2 personnel, 2 vehicles

SELWYN

5 personnel, 3 vehicles 20 adults evacuated

CHRISTCHURCH

1 personnel

NZ ARMY

Delivery of nine pallets of drinking water to Ashburton from Christchurch

Delivery of three 1,100-litre water pods to Ashburton from Christchurch

Delivery of two 2,000-litre water pods to Ashburton from Christchurch which are heading to Mt Hutt

Transported medical patients

ROYAL NEW ZEALAND AIR FORCE

Transported Prime Minister Jacinda Ardern to Ashburton to visit the EOC

Transported three Environment Canterbury Engineers to Timaru

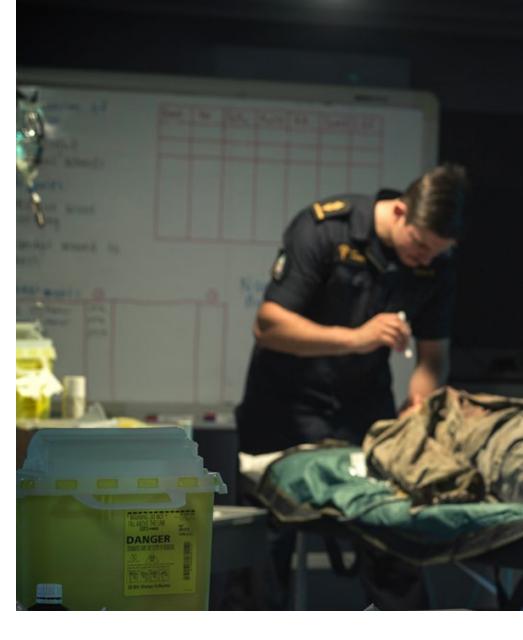
Took a team of five Selwyn District Council staff to Arthur's Pass and Castle Hill Villages for an assessment of water and sewerage infrastructure

Evacuated two civilians and brought supplies to Porter Heights Ski Field

Undertook a critical resupply task for Mt Somers General Store involving 500kg of stores from Christchurch Airport

Transported medical patients

Rescued three people in immediate danger



Overcoming trauma to become a medic

B | SENIOR COMMUNICATIONS ADVISOR
Y | CHARLENE WILLIAMSON

Aircraftman Julia Carpenter has overcome a serious head injury suffered in a car accident to embark on a career as an Air Force medic. he has recently graduated from Defence Health School at Christchurch's Burnham Military Camp following two-and-a-half years of study.

Aircraftman (AC) Carpenter, 21, of Ngāti Whakatere/Ngāti Rukawa, said she had always had an interest in health.

"Growing up I saw that health care wasn't always accessible in the community when it was needed and health outcomes in rural communities are often low.

"Eventually, I want to be part of providing a solution to this and be able to provide healthcare for, and give back, to my iwi."

There were many training highlights but she really enjoyed the last field exercise before graduation.

"I found that this exercise gave me the confidence in my ability as a medic and also made me realise how many skills and how much knowledge I have gained."

There were some challenges while completing training, the biggest was suffering a head injury in a car accident in 2019.

"My training was pushed back six months, as I needed some time off."



With the support of her unit, friends and whānau, she was able to reintegrate into the workplace and study environment to continue her training.

"I have seen a lot of patients since with concussions, or who have been through similar experiences, so it has really helped me to empathise with their experience and provide better medical care," she said.

AC Carpenter will now be posted to Base Auckland to begin her new career fully qualified.

"I spent eight weeks on my final placement there and I am very excited to be part of such an awesome supportive unit with amazing opportunities on offer.

"I would like to now be able to advance and learn skills in aeromedical evacuation as well as the opportunities for further study in health pathways," she said.

New Zealand Defence Force medics train in a tri-service environment at Defence Health School based at Burnham Military Camp. The training takes two and half years and is a mixture of theory and practical.

They also experience on-the-job training at Health Centres across Defence Force camps, ships and bases around New Zealand.

"It was a struggle because it gave me some temporary vision, memory and speech issues. But the **New Zealand Defence** Force and my unit were the most supportive workplace I could've asked for."

- Aircraftman Julia Carpenter



Kiwis takeover the P-8A

B | SERGEANT
Y | ACE LINDSAY

The heat shimmered off the tarmac despite the early hour of the morning. At 8am the 'Star Spangled Banner' played, echoing across United States Naval Air Station in Jacksonville, Florida.

he anthem was soon drowned out though as the engines of a P-8A Poseidon roared, sending the aircraft hurtling down the runway. On board were the very first New Zealand crew to take a P-8A on a tactical flight.

It was a significant day for the P-8A Personnel Exchange Program (PEP) of VP-30 Squadron in Jacksonville. The month marked a year since restrictions of movement had been in place for the Covid-19 pandemic.

But that morning, as the P-8A became airborne, the only restrictions were airspace, weather, simulated weapons systems and the imaginations of the "eight" New Zealand crew on board.

With one Kiwi on leave back in New Zealand, the crew were short a co-tactical coordinator for the flight. Up stepped Lieutenant Commander Jason 'J-Buttah' Brown. It was to be his last flight at VP-30 and there was an air of excitement as the "honorary Kiwi" jumped on board.

The aim of the flight was to put to the test some of the knowledge gained through instruction since graduating the initial P-8A operator course in September 2020.

The P-8A itself has many similarities to our own P-3K2. Much like the Black Caps' pace bowling quartet switching between a Kookaburra and a Duke ball, the art is not so much relearning how to do the role required but more so in how to operate the equipment available to its fullest potential. With this in mind, the aircraft held to the north of operating area Whisky 497 off the east Florida coast, ready to spin, seam and swing our way through a sea of simulated enemy threats.

Standing in our way were countless vessels. Merchant vessels carrying cargo, fishing vessels longlining the ocean waters, pleasure craft cruising in the warm winter climate. All of these were potential threats.



P-8A Poseidon's at VP-30 Squadron in Jacksonville

The Air Force crew and US Navy Lieutenant Commander Jason Brown, training on the P-8As

Simulated intelligence suggested that weapons were being carried on an unknown vessel in the operating area. The goal was clear; use the tools on board to determine what each vessel in the operating area was and the threat it posed to the aircraft, all while operating from a safe distance away.

The simulated scenario allowed the sensor operators, Sergeants Marlo Bowyer and Ace Lindsay, Flight Sergeant Nick Rowe and Warrant Officer Mike Kennedy, to thoroughly test out the equipment with the radar, electro-optic camera and electronic support measures all being used to classify vessels.

For the Tactical Coordinator (TACCO) on board, Squadron Leader (SQNLDR) Ben Smith, it was an opportunity to experience what types of information the crew could provide him on the P-8A in order to effectively make decisions on how to best employ the aircraft for the mission.

In the flight deck, SQNLDR Byron Wagstaff and captain, SQNLDR Ben Woodhouse, guided the aircraft around above the ocean.

As the flight went on, the "threat" was identified and the aircraft could safely proceed. The aircraft's multi-role capability soon came into play when a simulated search and rescue task came through for a vessel in distress.

With the United States having a Coast Guard to call on in these situations, this scenario isn't as familiar or trained for as often at P-8A squadrons as it would be in New Zealand. For the crew on board, it was an opportunity to experience firsthand how the aircraft operates in this role, giving the flight deck and TACCO vital button pushes required to execute a search and rescue profile.

On our return and as we were taxiing back into the flight-line, Old Glory flew in the wind in the background. It was a poignant moment in which to realise just how far the P-8A project has come.

With development already underway in Ohakea and a raft of people throughout the Air Force working extremely hard behind the scenes to prepare for this significant capability, it was a special moment to reflect on.

While "J-Buttah" confided post-flight that he had no real idea what the Kiwis were saying throughout, it was a special flight for him and an example of strengthening maritime ties between two nations. The crew have now returned to their instructing roles on VP-30, looking forward to the next time they can get back in the skies.



Air Force plugged in to electric bikes

B | COMMUNICATIONS ADVISOR Y | DAVE WILLIAMS A year into the Defence Force trialling electric utility motorcycles, the quiet machines are proving versatile and popular both in base security roles and out in the field. ix 2x2 bikes from Tauranga-based UBCO are being assessed for their suitability for Defence Force tasks such as reconnaissance and surveillance, airfield security and other transport roles.

The 65kg bikes are much lighter than normal motorcycles, have an electric motor in each wheel and, with regenerative braking, can travel up to 120km on a single charge.

After a period of familiarisation, the Air Force is now putting the bikes through their paces. They were recently taken on a Readiness Training Activity at Dip Flat, near Blenheim, where they were employed doing administrative field tasks and as an enemy force vehicle.

"They performed well on and off road, which enabled our teams to access areas unsuitable for standard vehicles; they also traversed fords and uneven terrain relatively easily," said Security Forces Specialist Sergeant Sid Gihon.

PHOTOSElectric bikes being assessed for use by the Air Force



"One of the biggest benefits was the availability of the portable power console charging device which enabled us to remain mostly self-sufficient when needing to charge devices such as radios and remote area lighting pack ups," he said.

"The bikes have been a great tool for security forces during the short time we have had them. We have employed them in a domestic base security role for tasks such as patrolling the Ohakea perimeter fence."

Security Forces specialist Flight Sergeant Jim Reilly said the bikes made it a lot easier than doing patrols on foot.

"It's also proved handy for short trips around the base," he said.

"The troops really enjoy them. They are basically electric scooters and no one is going to get into trouble riding them.

"They are really silent, which gives you great situational awareness. Motorcycles or 4x4s are quite noisy."

The bikes were not being used constantly so get charged frequently and the range wasn't an issue, he said.

Hayden Robinson, Joint Experimentation Manager - Land, Capability Branch, said another benefit of the electric utility bike was its low training and licensing requirements as they are legally classed as moped/scooter.

"The bikes are so simple to operate that only a half day familiarisation course is needed, even for novice riders. A conventional motorcycle requires a specific licence and weeks of training.

"As the experimentation continues it is hoped that many more units across the Defence Force will get the opportunity to utilise the bikes on various exercises in order to better understand if and how the bikes may represent a viable and useful means of mobility."

The bikes have been assessed through Capability Branch's Capability Management System and they are a good example of experimentation of military capability in action.

For a relatively low cost, a new transport capability can be trialled and assessed for suitability, adaptability, ruggedness and efficacy. Such trials inform the definition stage of future large Defence Force acquisition projects, perhaps offering an alternative to existing capability and with reduced risk.



his year the team consisted of firefighters, medics, aviation refuellers, supply and air traffic control.

The firefighters and medics were based out of the Rotorua Airport Emergency and Operations Centre, and worked and trained alongside their Emergency and Operations Officers.

Firefighters Corporal (CPL) Ben Vickers and Aircraftman (AC) Kieran Anderson attended the training. Their daily routine consisted of fitness training in the morning with the local crew, then medical refresher training followed by an emergency response check in the afternoon.

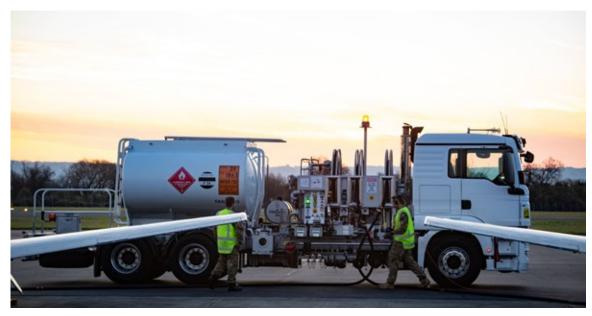
CPL Vickers said they had a few differences in equipment with the local crews, but very similar procedures and mind-set in the way they carry out their response.

The Air Force crews were focussed more on the pure firefighting aspects while the local crews were required to cover more airfield operations tasks, he said.

Leading Aircraftman (LAC) Sam Wardhaugh and AC Dani Franken were the medics on site. LAC Wardhaugh was happy to provide some medical refresher training to the crews and enjoyed the opportunity to work closely with the Air Force firefighters.







"Although we are both involved in emergency response, we don't often get the chance to work alongside the firefighters on a day-to-day basis and see what they do, so this was a great opportunity to achieve that."

The Air Force also brought along its own fuel requirements to the exercise. Two fuel tankers each capable of holding 7,000L of aviation fuel deployed, one from Base Ohakea and one from Base Auckland.

CPL Mitchell Taylor, LAC Shaun Rutherford, LAC Ben Le Cren and AC Elijah Tavui attended as the refuelling team.

Air Force aircraft are unable to use the airport fuel as it needs an icing inhibitor added to the fuel, they said.

Each aircraft averaged 300-350L of fuel each flight. When the flying programme is full there could be 15 aircraft flights a day which means potentially over 5,000L of fuel a day required. The tankers would travel back to Whenuapai as required to restock and then head back to Rotorua - a round trip essential to keep the aircraft flying.

LEFT

Firefighters train during the exercise

Staff from Airport Operations, Medical and Fire discuss their roles

BOTTOM RIGHT

Fuel specialists prepare to fuel up the Texan aircraft

Awards for Whakaari/ White Island response

A number of Air Force personnel have been recognised by the Chief of Defence Force for their leadership, skills and professionalism during the Whakaari/White Island response.

rom specialist doctors to
helicopter pilots, Rigid-Hull
Inflatable Boat drivers to
Commanding Officers, and everything
in between, the Defence Force had a
wide-ranging response of skills to draw
from when the need arose following the
island's volcanic eruption on 9 December
2019, which claimed the lives of 22
people and seriously injured 25.

Among the Defence Force members recognised with awards for their actions, Air Force personnel received the Defence Meritorious Service Medal, Chief of Defence Force New Zealand Commendations and a Defence Force Commendation.

Flight Lieutenant (FLTLT) Hamish Reichardt, the lead pilot of the second NH90 helicopter detachment to respond to the tragedy, was the recipient of the Defence Meritorious Service Medal.

His citation said FLTLT Reichardt showed exceptional leadership as his aircraft was prepared for the task and his crew were consulted on how the recovery operation should proceed.

"This was no ordinary mission. The recovery operation itself was not straightforward, with unfavourable wind and a low cloud base at around six hundred feet.

"A regular volcanic explosion every few minutes would envelop most of the crater with poisonous gas and fumes, and therefore required the aircraft to operate in and out of the area in cycles. In addition, two of the victims were unable to be located which resulted in a low level search in a challenging environment, demanding exceptional piloting skill to operate the NH90 helicopter towards the edge of its limits."

FLTLT Reichardt demonstrated excellent judgement and agile decision making by modifying the recovery plan to use an alternative technique to recover some of the more isolated bodies, the citation said.

"FLTLT Reichardt was conscious of the high profile nature of the task, the requirement to treat the victims with dignity and respect, and how critical this task was to the families and friends of those who had perished."

Sergeant (SGT) Phil Delaney received the Chief of Defence Force Commendation for his actions as the lead helicopter loadmaster of the NH90 helicopter detachment.

On the day of the recovery operation, SGT Delaney worked to safely operate the aircraft within the crater in toxic and highly variable conditions, his citation said.

"Throughout the flight he provided information to the pilots about obstacle clearance, proximity to ash, steam and gas clouds, escape path monitoring, and status of the ground party, all whilst concurrently searching for two missing bodies.

"SGT Delaney displayed a high level of skill as he expertly guided the aircraft and ground recovery teams to suitable extraction sites."

FLTLT Loic 'Frenchy' Ifrah was the co-pilot of the second NH90 helicopter detachment and also received the Chief of Defence Force Commendation.

He was one of the two pilots tasked with conducting the air recovery of the victims from Whakaari/White Island.



FLTLT Ifrah volunteered to undertake the recovery operation and in doing so, helped develop a plan to operate within the crater in cycles to ensure the safety of the aircraft and crew, his citation said.

"Communication was critical to ensure they all knew what hazards were present, where the ground recovery team were and what was expected of them as the recovery operation evolved.

"FLTLT Ifrah worked closely with the lead pilot to enable efficient approaches to the recovery sites and assisted with the power demands of the aircraft all the while monitoring the frequent gas explosions. He continuously passed critical information allowing the lead pilot to concentrate on the task of recovering the victims."

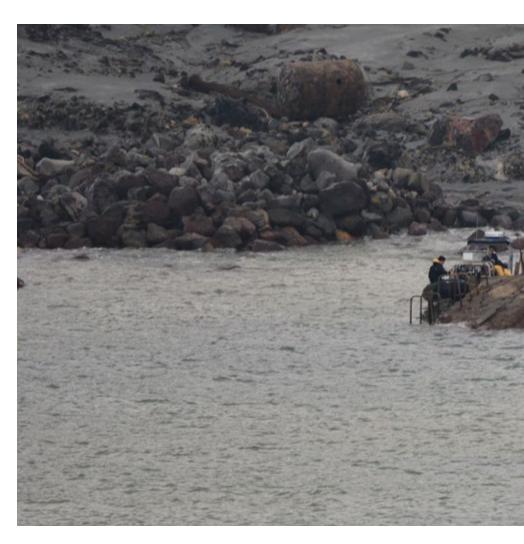
Helicopter loadmaster SGT Jennifer Hart also received the Chief of Defence Force Commendation for playing a vital role in assisting with guiding the aircraft over the crater both when searching for the victims and when conducting the body recovery via air.

She concentrated on the hazard caused by variable ash disturbance, analysing the aircraft's escape path and the status of the ground recovery team throughout the operation, the citation said.

"SGT Hart was instrumental in informing the pilot of the hazards from her side of the aircraft and in assisting the lead helicopter loadmaster in securing the victims during the extraction back to HMNZS Wellington."

Squadron Leader (SQNLDR) Chris Ross was the recipient of the New Zealand Defence Force Commendation.

Even though he had been posted as the Medium Utility Helicopter Flight Commander at No. 3 Squadron just days before the eruption, SQNLDR Ross assumed a leading role in the operational planning, risk management, logistic support and personnel planning in support of the likely use of military helicopters in the recovery operation.

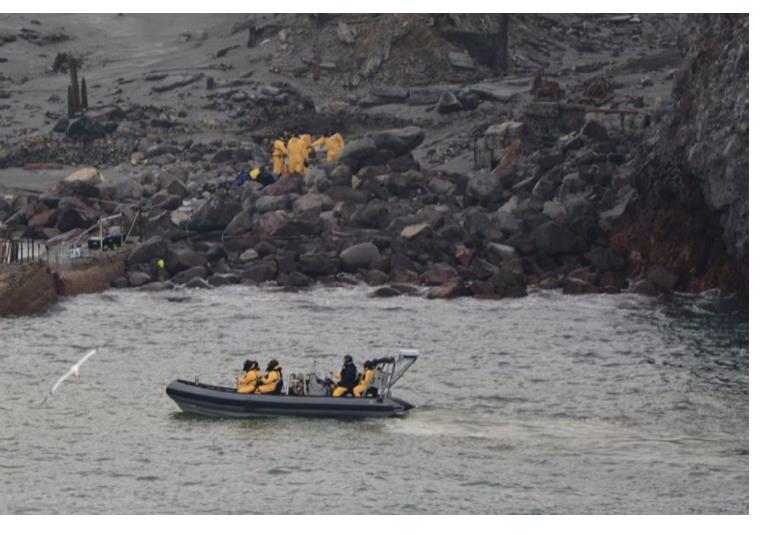


He provided expert advice to the Deployable Joint Inter-Agency Task Force element, the New Zealand Police planners and commanders, and liaised effectively with the local helicopter operators to develop the recovery operation concept of operations, his citation said.

"SQNLDR Ross' knowledge of the NH90, his ability to extract key information from his own personnel and other individuals outside his command, complemented by his ability to efficiently develop a plan with requirements that were unique and unprecedented, resulted in a plan that led to mission success.

"His performance surpassed what would normally be expected of a Detachment Commander, and led his personnel with determination, competence and empathy."











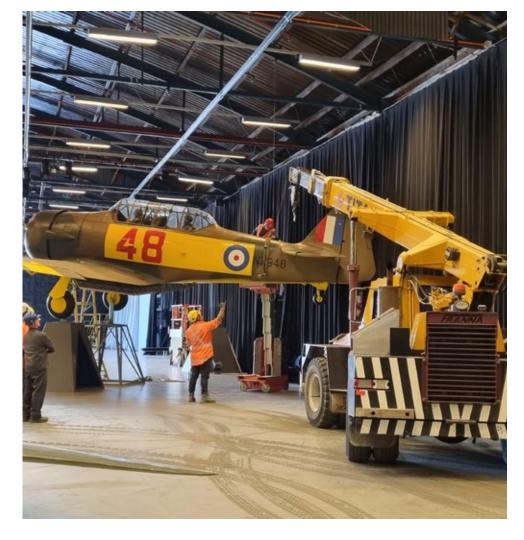
When the RNZAF
Museum opened in
1987, many people were
amazed by the dramatic
lighting effects that had
been created in the main
aircraft display hall, a
repurposed World War
Two-era hangar. Over the
years it has continued
to delight, showing off
the aircraft collection in
a way not seen in many
other aviation museums.

ecently, the Aircraft Hall received its first major upgrade since its opening. Over a period of six weeks, all the original 1980s incandescent lights and nearly 4km of electrical cabling were removed and replaced with modern LED lights. These lights are not only more efficient, but also more controllable, and have enabled us to incorporate some dynamic effects in the space which will allow visitors to experience the aircraft in new ways.

While many visitors loved the old lighting, we were aware that others found the low levels frustrating for photography. To address this, we've programmed a brighter, more natural 'daylight' setting to enable the aircraft to be viewed in a clearer state.

The main difference is that the lighting is not static. Part of the cycle comprises the daylight setting, while in the other, the lighting transitions through various levels to suggest different times of day, creating a visually striking effect.

Visitors may notice a few other changes, too, as we've taken the opportunity to refresh the display layout. This involved moving all the aircraft out and repositioning them once the new lighting was in place. For some aircraft, it was the first time they'd seen daylight in more than 30 years, and it offered a unique opportunity to capture some photos of them on the tarmac that they once operated from.







Among other things, the recently restored Airspeed Oxford has been moved onto permanent display, while fans of the Avenger will enjoy seeing it now with its wings spread. The mannequins have been retired after more than 30 years' service and will be replaced at some point in the future with newer versions. The new layout at the end of the Hall, with Iroquois 01 taking centre stage, has been deliberately designed to prevent aircraft having to be moved in and out as frequently when functions are held in that space. This will give greater protection to the collection while facilitating a valuable revenue stream for the Museum.

The Aircraft Hall renewal has been a massive project involving a huge amount of work from a whole team of lighting professionals, as well as our own Technical Team.

We'd like to extend an especially big thank you to our in-house audio-visual technician David Nicholson (who helped install the original lighting in 1987!), and the incredible people from The Light Site and Kenderdine Electrical Ltd.

The completion of the lighting upgrade and aircraft reshuffle is the first in a multi-stage revamp of the Aircraft Hall as a premier museum gallery. Going forward, visitors can expect to see a gradual programme of improvements, including revised interpretation, more audio-visual effects and interactives, and the inclusion of smaller supporting artefacts from our collection.

LEFT

Part of the renewed Aircraft Hall display, with Avenger NZ2504 now with wings spread

MIDDLE

Harvard NZ1087 being lowered off its plinth, for the first time since 1987

TOP RIGHT

Preparing coloured gels for the original incandescent display lights in the Aircraft Hall prior to the opening of the Museum

BOTTOM RIGHT

Air Force Museum Audio-visual technician David Nicholson (left) and Director of The Light Site, Grant Robertson, discussing the lighting plans in the Aircraft Hall. David helped install the original lighting in 1987

LSV course changing lives

B | SENIOR COMMUNICATIONS ADVISOR Y | SIMONE MILLAR

Substance abuse, poor mental health, poverty of experience and a lack of life skills are just some of the barriers facing young people trying to find employment.

ut over the past three decades, the Limited Service Volunteers (LSV) Programme, run out of Base Auckland, has helped turn young people's lives around.

This six-week residential course supports 18 to 24 year-olds who are at risk of long-term unemployment, and recent graduates are already reaping the benefits.

Trainee Renee Cooper-Paraha, ended up on the unemployment benefit as a result of Covid-19 last year.

"Before last year I was studying at university, then Covid hit and I failed the course. I got really embarrassed and didn't go back. So I thought I can either do six weeks of something or six weeks of the same old nothing."

And it's paid off, with what Ms Cooper-Paraha calls a 'real job'.

"While I was on the course I got a job offer from the expo that was held here on base. I'm going to work at Auckland DHB as an Optometry Technician. It's a real job."

The LSV course offers young people life and employment skills, social skills, values, training and nurturing confidence. Wrap-around services are also on-site at the Youth Development Unit, such as social workers, police mentors, registered nurses, trained Youth Development Specialists and the Ministry of Social Development (MSD).



Trainee Astra Brill was unemployed in her home town of Te Awamutu but she's experienced the benefits of having support.

"I wasn't really doing much. I wasn't being proactive. I had been unemployed for nearly four months, so I was like what else am I going to do?

"The course has kind of built a foundation for me. I didn't realise how many opportunities there were for me here. And just the way the experience can change your wellbeing," she says.

"I've applied for a job within the contact centre for the Ministry of Social Development. The staff from MSD here are so amazing. They've helped me with my application and interview tips. I'd like to come and work here. I really, really love it here, it's my second home."

Part of the success of the programme comes down to a structured military environment, being drug and alcohol free with a focus on fitness and nutrition.

Corporal (CPL) Jordon Waerea leads the trainees' physical training. He says the trainees often start the course with a low level of physical ability, but by the end of the course there is a huge improvement not only physically, but mentally as well.

"The physical training includes cardio, strengthening, respiratory and muscular endurance. The fitness improvement is outstanding. It's 10-fold," says CPL Waerea. "The trainees also take part in physical challenges such as a sandbagging scenario, fire hose run, a 6km crosscountry run and a 10km orienteering course," he says.

With their military-styled graduation parade approaching, both Ms Cooper-Paraha and Ms Brill look back on their experience with pride and gratitude.

"From then until now I've definitely changed. Now I can bring myself out and it's okay," says Ms Brill.

"We got our brand new caps yesterday and I cried. I felt like such a whole new person. I've made so much progress on this course. I was scared I might not be strong enough to finish the course, but as soon as I put that cap on, I was on top of the world," says Ms Cooper-Paraha.

Both graduates will receive continuing support from the Future Leaders programme, which has supported more than 650 youth since 2014, and continually achieves more than 80 per cent sustainable career outcomes for our rangatahi.

The Limited Service Volunteer programme is funded by the Ministry of Social Development and delivered by the New Zealand Defence Force Youth Development Unit.



What's a **Provost Marshal?**

The New Zealand Defence Force Provost Marshal is a unique modern-day role that reflects a long history of an ancient office.

ecords of the first appointed Provost Marshal refer to an individual who maintained good order and discipline within the English armies, together with the King's personal security and was described as "the first and greatest gaoler of the Army". Centuries later and a world away, these basic tenets continue to underpin the role of the Provost Marshal, but naturally the position is much enhanced and very different in scope, form, function and output.

In the Defence Force, unlike most of our partner nations, the Provost Marshal neither commands the Military Police nor is the Provost Marshal for a single Service. Instead, the appointment sits within the Office of the Chief of Defence Force with the Provost Marshal acting as a key advisor to senior leadership in relation to the Military Police, criminal and disciplinary investigations and custodial matters.

One of the most important roles is setting the professional standards for and maintaining independent oversight and governance of these functions.

In a particularly niche role, they also work to the Vice Chief of Defence Force as the lead in responding to fraud and corruption for the Defence Force.

The current Provost Marshal is Colonel Kate Hill, notably the first woman to be appointed as a Provost Marshal in New Zealand. She was appointed to the role during Covid lockdown in March last year. We asked her some questions about her role:

What is your background and how did you become the NZDF Provost Marshal?

I have been in the military for 33 years, a combination of Territorial Force (Reserve Force) service and Regular Force service, serving in the Army initially in the Royal New Zealand Corps of Signals, followed by the New Zealand Intelligence Corps, the Royal New Zealand Military Police and for about 15 years as a legal advisor in the New Zealand Army Legal Service. I served as a Police Officer with the New Zealand Police for 11 years, in a variety of roles including as a frontline officer, investigator and intelligence officer. I think it was a combination of my service, experience and qualifications that led to my selection for the role of Provost Marshal.

What do you like best about your role?

The networking and relationship building that is critical to working as an advisor at the strategic level. I have to work every day to develop and build relationships within the NZDF, with partner agencies and with my professional counterparts in other militaries.

In the Covid environment we are having to learn to do this differently and although it is sometimes a big effort, the relationships that result are genuinely worth it.

What are the challenges in this role?

Overcoming a widespread lack of understanding about what the Office of the Provost Marshal does and accessing information from across the NZDF that allows me to provide technical support and guidance or policy direction where it is needed. I hope this article might help with that.

You are the first woman to be a **Provost Marshal in New Zealand to our** knowledge, do you consider that to be an important milestone for the NZDF?

To be honest I had not really considered it at all from that angle until now, but yes, I think women being appointed to senior positions in any organisation is important. If it provides inspiration to other women coming up behind me in the NZDF, as I have been inspired by women who have gone ahead of me, then it is a positive thing.

Defence Force joins race to the top of Auckland's Sky Tower



B | SENIOR COMMUNICATIONS ADVISOR Y | SIMONE MILLAR

It's no easy task navigating more than 51 flights of stairs, while wearing more than 25kgs of firefighting kit, but that's what Defence Force firefighters took on this May.

leven firefighters competed in the 2021 Firefighter Sky Tower Stair Challenge, and it's all in the name of giving back to the community, with much-needed funds going to support Leukaemia & Blood Cancer New Zealand.

The three teams represented Base Fire Brigade Ohakea, Whenuapai Rescue Fire Service and the Waiouru Fire Brigade.

Sergeant (SGT) Michael Shepherd is no stranger to the event, competing for the tenth time, with what he calls a "slow and steady" approach.

"Like the tortoise I usually pass the hares that bolt out the gate at around the tenth floor. It really is a matter of controlling your breathing, using a bit of resilience and just keeping moving forwards, this is ingrained in every firefighter when they go through their training. In saying that, yes it is definitely harder than day to day compliance training around the station."

"I train in my fire kit and a weighted vest at a set of stairs located close to my home – fortunately they're a pretty consistent 1,000 steps to the top so pretty good practice," SGT Shepherd says. Aircraftman (AC) Holly Middlemiss, firefighter from Whenuapai Rescue Fire Service, is competing in the challenge for a second time.

"To me, it is very close to my heart, as I have lost many friends and members of my family to cancer over the years. So when I do the climb, I do it to show my support and gratitude, to the fight they had trying to beat this horrible disease.

"While it's a competition, the whole point of this event is to bring people together to help those who need it. Many firefighters from the Defence Force have competed in this event over the years, and helping those who need it, is what the job is about for me," AC Middlemiss says.

It's the first time Lance Corporal (LCPL) Cameron Turner, responder from the Waiouru Fire Brigade, competed in the race to climb to the top of the Sky Tower.

"Raising funds and participating in the challenge is close to my heart as my mum was diagnosed with a rare form of Leukaemia and struggled with the illness. Thankfully she is now in remission, however so many others in New Zealand are not as lucky," he says.

"While firefighter training can be challenging at times, I would definitely say that climbing the Sky Tower is going to be more challenging. Normal fire training consists of structural, rural and aircraft firefighting, motor vehicle crashes, medical emergencies and hazardous substances.

"In Waiouru there are no high rise buildings with stairs suitable so climbing stairs in our full firefighting kit is not common. However we have all been doing specific training utilising stairs to condition ourselves for the event, In addition to fundraising to generate donations for the cause," LCPL Turner says.

Leukaemia & Blood Cancer New Zealand is the national charity dedicated to supporting patients and their families living with a blood cancer or a related blood condition.

Notices

NZDF SUMMER INTERNSHIPS 2021/22



Are you a serving Reservist about to complete your university studies or are you preparing for a break between semesters?

Do you want to learn more about what the New Zealand Defence Force (NZDF) does in your area of study?

The NZDF Summer Reserve Force Internship Scheme (RIS) provides selected NZDF Reservists with a paid internship at a NZDF base across New Zealand. Chosen interns will be placed where their individual skills can best be used while the intern will be exposed to opportunities to further a military or civilian career with the NZDF.

At the end of the placement, successful applicants will receive a final report/ reference from their Sponsor Branch. The report is detailed and covers Position Title, Position Description, Experience Gained, Task/Projects completed, Skills Acquired, Strengths Displayed and a general comment from the supervisor.

Applications available between June 11 and August 27. For all queries please email Reserves@nzdf.mil.nz.



BODYBUILDING COMPETITION

The New Zealand Defence Force in association with ICN New Zealand **Presents:**

The Armed Forces and Emergency Services Bodybuilding and Fitness Competition 2021.

For details and registration of interest please email: . BBComp@nzdf.mil.nz.

In support of Te Kiwi Maia -The Courageous Kiwi www.tekiwimaia.co.nz

RNZAF PROVOST/RNZAF POLICE REUNION

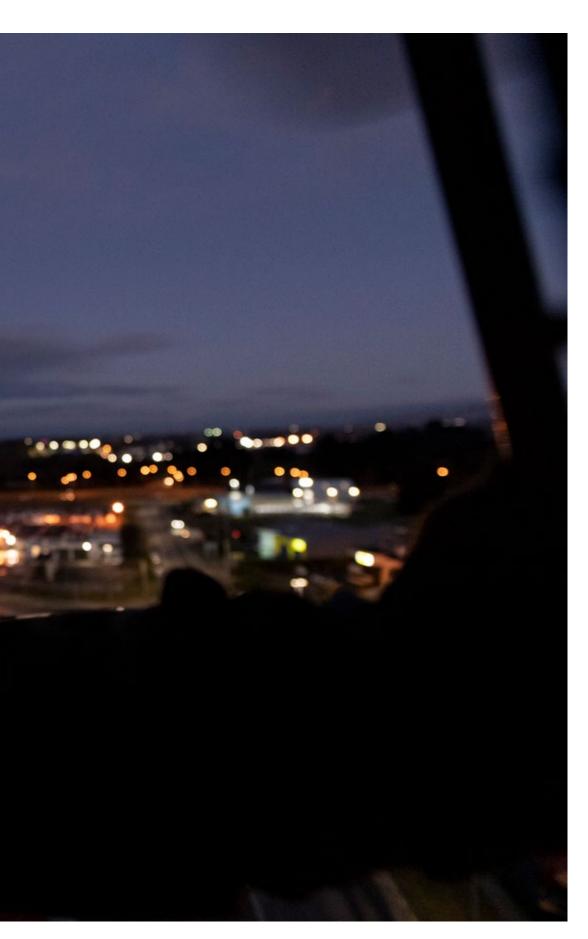
3-6 March 2022, Blenheim

Any ex or serving member of the above trades welcome. Also a general enquiry; are you aware of anyone who served in the Provost trade from the 1950s through to the mid 1960s, please make contact with us. There is a gap in the RNZAF Provost history that we're interested in finding out about.

Expressions of interest to Colin Waite elephant-tracker@xtra.co.nz







LEADING AIRCRAFTMAN RACHEL PUGH

I don't get the chance to return home to Christchurch very often, so it was good to be back for a short time, even under the difficult circumstances of the Ashburton floods. Growing up, I used to sit and look out at the city lights from my parents' house up on the hill. It's one of the things that reminds me most of home.

While I was there, the NH90 crews spent a very long day delivering supplies, equipment and people to stranded areas around the region. As the day began to fade and we made our slow descent back into Christchurch for the night, I saw the same lights that I remember so well reflected in the loadmasters helmet. I wanted to freeze that moment in a photo - the mix of the peace and nostalgia of my home city with the pride I have for a job I love, being a witness every day to people who are willing to work so hard in the service of others.



Kickstart your career with a Defence Scholarship

With a variety of scholarship opportunities available across Navy, Army and Air Force, get ahead by visiting our website or talking with your local recruiter.

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