

Australian Peacekeeper

WINTER 2021

MAGAZINE



LAND
FORCES
2021



THE PARADE

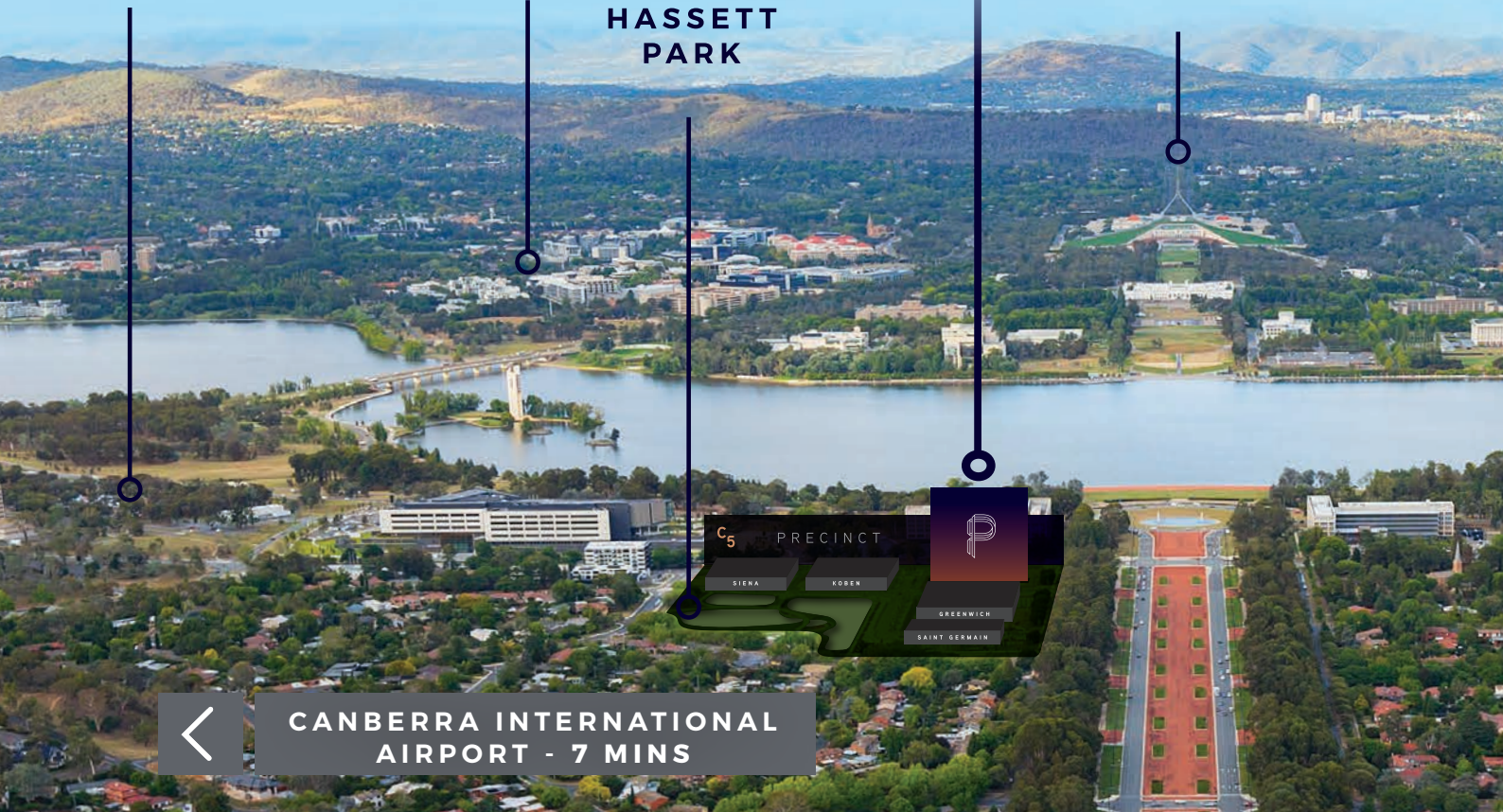
CAMPBELL

RUSSELL OFFICES

BARTON

HASSETT PARK

PARLIAMENT HOUSE



CANBERRA INTERNATIONAL AIRPORT - 7 MINS

Live or invest in the heart of the nation's capital.

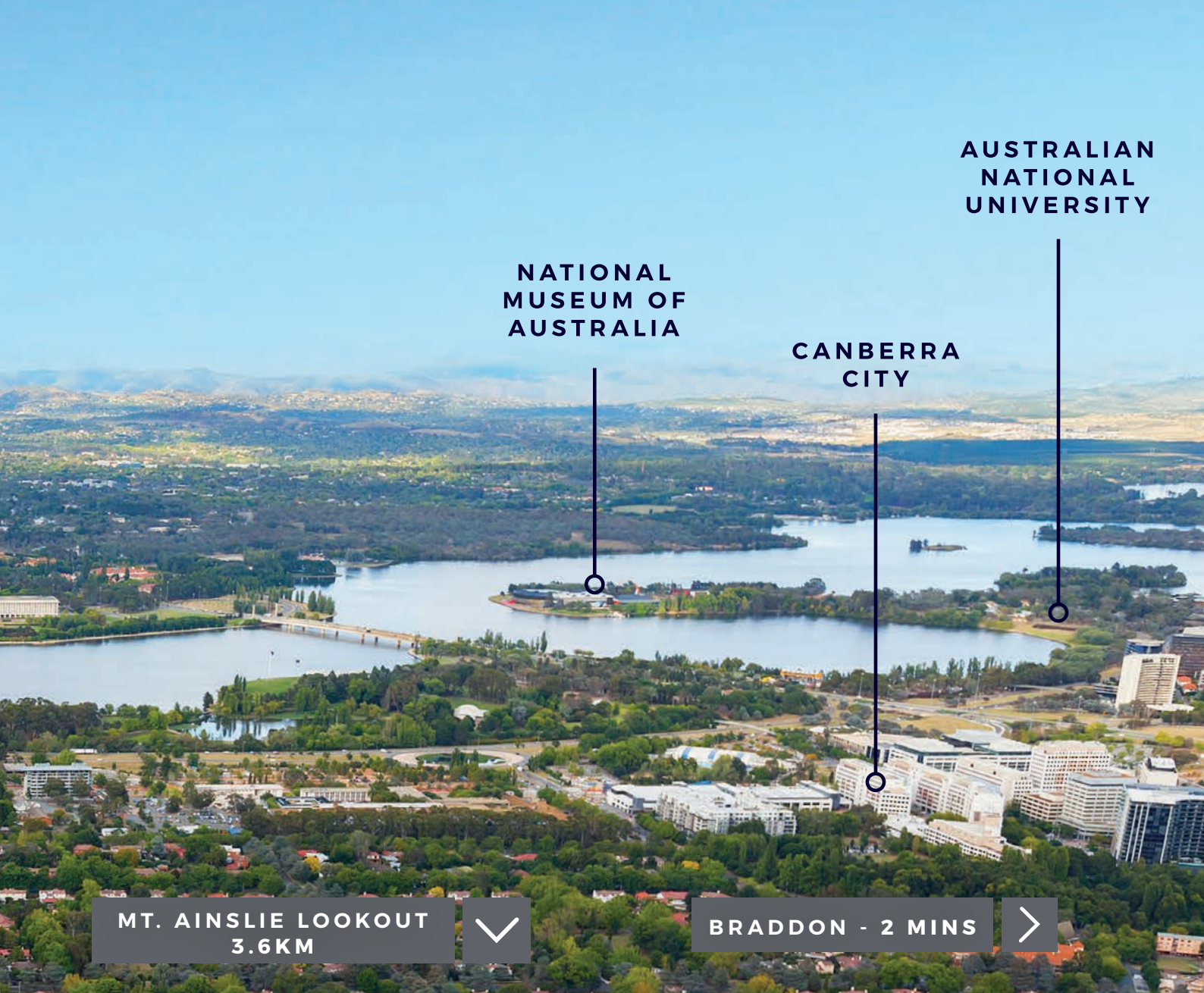
The Parade is superbly located next to Anzac Parade, in the leafy suburb of Campbell. With the bustling CBD, picturesque Lake Burley Griffin and iconic Mount Ainslie all minutes away, The Parade is perfectly located to meet all your living, working and playing needs.

Move In Mid-2021

CAMPBELL5.COM.AU



DEVELOPED BY JWLAND



AUSTRALIAN
NATIONAL
UNIVERSITY

NATIONAL
MUSEUM OF
AUSTRALIA

CANBERRA
CITY

MT. AINSLIE LOOKOUT
3.6KM



BRADDON - 2 MINS



THE PARADE

CAMPBELL

2 bedroom apartments from \$555,000

3 bedroom apartments from \$990,000

For more information call or text Dallas on 0414 487 086

CONTENTS

20 WINTER
21 EDITION

ARMY

- 4 Australia Army Profoundly changed by two decades of war in Afghanistan
- 16 Women fitted to fight
- 18 Welcome to the Jungle
- 23 Re-imagining the future

NAVY

- 37 Uncovering a hairy history
- 39 Strengthening International ties with push-ups
- 41 Bridging train carries precious cargo
- 41 Arunta the pride of the fleet

Air Force

- 29 Looking to the future
- 51 Airman of the year announced
- 54 RAAF Centenary focus of Anzac Day

ADF

- 8 ADF health partnerships should be the next step in Australia's Pacific step-up
- 12 Australian universities integrated into war drive
- 32 Why Darwin should be the crossroads of the Quad
- 35 Defence building key relationships with industry

DEPARTMENT

- 1 President's Report
- 3 Vice President's Report
- 57 Relocation
- 60 Transition



Contributors:

Department of Defence, ASPI, Department of Veterans' Affairs.

President: Rob Woods JP. president@peacekeepers.asn.au

Vice President: Ian Lindgren vicepresident@peacekeepers.asn.au

Treasurer: Brendan Hill, treasurer@peacekeepers.asn.au

Communications Mgr: Kris Milne
communicationsmanager@peacekeepers.asn.au

Advertising: Sharon Pace sharon.pace@bigpond.com

Publisher: Flight Publishing P/L: Kylie McQueen 02 9380 9065

Australian Peacekeepers Magazine is published quarterly by Flight Publishing Pty Ltd (ABN 66 086 424 259) for and on behalf of the Australian Peacekeeper & Peacemaker Veterans' Association (ABN 59 558 194 094) © 2018. All rights reserved. www.peacekeepers.asn.au

Australian Peacekeepers Magazine attempts to provide insight into the experiences of peacekeepers, Defence members and war veterans and the issues that confront them together with encouraging informed debate regarding issues dealing with but not limited to Commonwealth compensation, pensions, superannuation and occupational health and safety that affect Peacekeepers and their families. We welcome input from members and would love to feature personal experiences in each issue. Please email the editor with any stories you would like to see printed. The views expressed in the articles are those of the particular author and not those of the Australian Peacekeeper & Peacemaker Veterans' Association (APPVA). The APPVA will not be legally responsible in contract, tort or otherwise for any statement made in the articles in this publication.

Cover: Australian Army soldier Sapper Joseph Trevillion, from the 2nd Combat Engineer Regiment, guides an M1A1 Abrams Main Battle Tank across the Dry Support Bridge during Exercise Diamond Catalyst in the Shoalwater Bay Training Area, Queensland.

This page: Australian Army Private Luke Tsallis from the 7th Battalion, Royal Australian Regiment, scans for enemy forces while patrolling during a live-fire platoon attack as part of Exercise Maroon Dawn 2021 at Cultana Training Area, South Australia.

President's report



Greetings all,

I trust this report finds you all well and in good spirits. Anzac Day 2021 has again been commemorated around the country and indeed across the world. It was great to see so many photos and posts on our social media where Anzac Day commemorations were attended by our members.

During these uncertain times, Anzac Day was able to be supported by the community at traditional dawn services and marches, some were restricted by covid19 health orders. Unfortunately, our friends in WA were only able to 'stand at their driveway' this year due to the covid19 restrictions, again the community rallied together, complied with public health orders, paid their respects to those who gave their all for our country.

The APPVA as you know is moving towards becoming a company limited by guarantee. This process will have no direct effect on our services, representation and support to you the veteran community, it will further enhance the APPVA to be more transparent and accountable organisation, it will put us in a position of having a strong corporate governance process.

The move to a company limited by guarantee came as a result of advice received from the ACNC, from internally sought legal advice. This transition has been on the agenda of the APPVA since 2018 when it was agreed that the organisation needed to become one organisation that was able to operate across Australia.

Previous constitutions, state/territory legislations prevented this from occurring, we operated as individual incorporated bodies.

A lot of work and research supported by legal advice now holds the APPVA to be able to operate as one entity across Australia with one leadership team supported by state/territory based representatives that our members can utilise to resolve issues, get much needed support as well as representation with the government via the DVA.

As some of you may be aware, the APPVA has commenced to secure our brand in the open market, we will continue to protect the APPVA intellectual property by ensuring that only those who are truly supported by the APPVA will have our permission to proudly display our name and brand.

You would all be aware that the Prime Minister announced on 19th April that a Royal Commission into veterans' suicide will be convened. The Terms of Reference (TOR) are currently being formulated. Ian Lindgren our Vice President will lead the APPVA submission and representation on our behalf to DVA and take onboard your ideas and concerns to ensure this process is held accountable.

I encourage all to participate in this extremely important process as it is our opportunity to make change and hopefully identify and address the factors that have caused so many veterans to take their own life.

Previously the APPVA held the position that a Royal Commission was not necessarily the best option, since that time the National Commissioner into Veteran and Defence Suicide has been established. A lot has changed as have we, including the focus of the Royal Commission, this focus now should be on the TOR's for the Royal Commission. The APPVA fully supports both enquiries, and we look forward to contributing to the outcomes of each.

I want to thank those who did support the original call for a Royal Commission over the last 10 years or so, without these people we would not be in the position we are today. I would like to see politics and media hype left out of this process so that those involved can get on with the job of identifying the causes and how we can put a stop to veterans taking their own lives now and into the future.

I can see that the APPVA is growing in numbers and in a positive way, the efforts of the Executive and the Committee who continue to work hard behind the scenes is greatly appreciated. These efforts allow the APPVA to support our members, their families and to continue to build positive working relationships with other likeminded ESO's. Together we can better serve the greater veteran community and their families.

The APPVA merchandise items has seen the addition of car bumper stickers, these stickers are of a high quality to ensure they do not fade. If you haven't seen them please visit the merchandise online store and have a look. This is an opportunity for you to be able to display your support for the APPVA at the same time help us to much needed funds for the APPVA.

Should you have a story or your own experience you would like to share with us, please send your story with any images in hi resolution to our editor at communicationsmanager@peacekeepers.asn.au . I want to emphasise that 'Peacekeeper' is your magazine and any suggestions or items of interest you may have that will improve the publication, please do not hesitate to forward them to Kris our editor.

I thank you for your continued support, as without you the APPVA would not be able to do its work for our veteran community, we continue to strive for excellence in corporate governance and accountability.

Yours sincerely,

Rob Woods.

BE CONNECTED ON JOINT MISSIONS



CODANCOMMS.COM



MANET SDR Handheld Radio

The SOL8SDR-H is a single solution to meet the mission-critical requirements of tactical and special operation applications where robust, encrypted, tactical mobile communication links are needed to provide enhanced situational awareness.

The SOL8SDR-H utilises DTC's* proprietary waveforms to provide fully encrypted high bandwidth data, video and audio in challenging, dynamic, NLOS environments in which our users operate. It has been engineered for dismounted, body worn, ground fighting vehicles and MUM-T to provide Shared Situational Awareness (SSA) applications in cities, urban and subterranean.

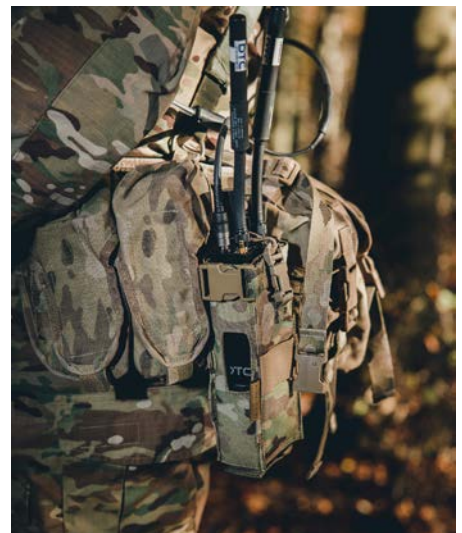
This Software Defined Radio (SDR) is at home operating as a Tactical Mobile Adhoc Network (MANET) IP Mesh node, a point-to-point (P2P) COFDM Transmitter, or a P2P receiver, streaming video to a tablet PC. It also offers dual on-board HD-capable video encoders and support

for a variety of different camera interfaces to stream live video in an operational environment.

The radio also features an "open mic" full duplex-audio with four independent audio channels, built-in GPS receiver, on-board SD card storage, as well as a full 2W of output power. It combines a familiar "Soldier Radio" physical form factor, robust construction and simplified user interface, with the ability to use industry standard battery packs, chargers and holsters.

Features and Benefits:

- Real-Time Video, Voice, Position Location Information (PLI), Chat and Data whilst "On -the-Move"
- Excellent NLOS performance for Subterranean and Urban warfare
- Fluid, self-healing, flexible Mobile Adhoc NET (MANET) networking powered by MeshUltra™
- High Data throughput at greater range at low power; reducing the soldier burden



- EW Hardening, Low Probability of Detection (LPD), Low Probability of Interception (LPI) features for resilience in hostile environments
- Delivering scalable and flexible battlefield connectivity; from Squad to Company level.

**Codan Ltd acquired all of the shares of US-based company, Domo Tactical Communications (DTC) in 2021*

www.codancomms.com

Vice President's report



At time of writing, we have at least two significant events occurring. The first is the consultation on the Terms of Reference for the Royal Commission into Defence and Veteran Suicide, and internally we have our own conversion to a Company Limited by Guarantee. However, to me, the greatest positive is the growing number of people putting themselves forward to be volunteers and help other veterans in the APPVA or other veteran groups. This is significant.

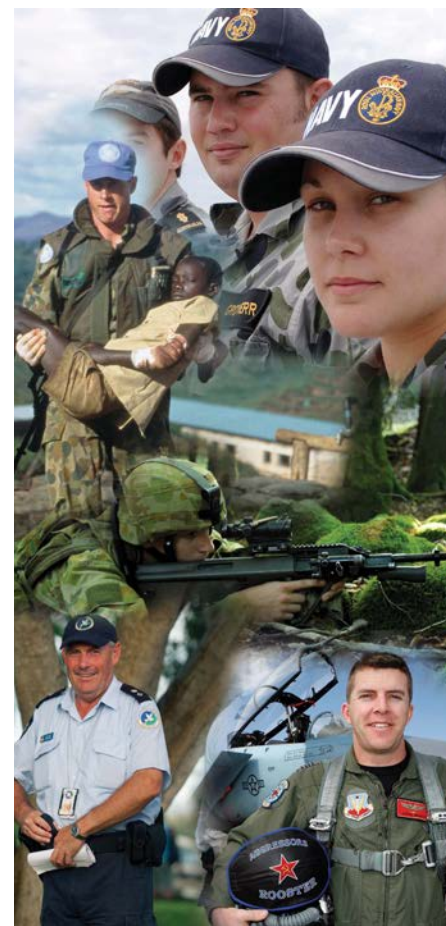
Veterans support veterans and the more we operate in support of one another and remove the negatives that have been pushed on us through the effects of issues such as the IGADF Inquiry, and the effort it took to get the Royal Commission in place, the better off we will be as a community. It is time to do all we can to unite the veteran community.

It is important that I address the Terms of Reference for the Royal Commission because it is very clear

to me that the majority of living veterans today are not comfortable with the DVA, ESORT and other working groups to be the conduit for the terms of reference to the Attorney General. However, that is no reason to discount the DVA approach to the Royal Commission because we are proud members of the ESORT and we have a lot to give through what's known as the National Consultation Framework that goes all the way to the Prime Minister.

The best approach is to recognise that many in the veteran community want an alternative approach to the consultation process that leads up to the Royal Commission, and the APPVA is working in partnership Heston Russell – Voice of a Veteran. Together we have developed a draft mission “to do what needs to be done to maximise and support Veteran and Veteran Family engagement with the Royal Commission into Defence and Veteran Suicide in order to support the healing and progression of the Australian Veteran community.” We are jointly planning an Ex Service Organisation Consultation and Planning Conference in 14 May 2021 in the Brisbane area. All of the veteran community, including AFP, reservists and our families and support networks will benefit from this. This should be well underway by the time we go to print.

Exciting times ahead with all these positives.



www.peacekeepers.asn.au

APPVA financial members

The website has an inbuilt membership management system in it that will process the majority of membership again on the 30th June 2021 for \$30 for full and Associate members.

There are some that have in the past paid via direct deposit and I will be emailing those members after the 30th June with bank direct deposit details.

There are a small number that have not setup automatic renewal and once the majority of members are automatically processed by the website I will contact you via system generated invoicing to enable you to pay securely on link via a Stripe invoice.

There will be a update to our membership system once the Company Limited by Guarantee process is finalized in the next few weeks that will require a signed form to be returned back to us as we shift to the ACNC's required business structure for APPVA.

Australian Army profoundly changed by two decades of war in Afghanistan

The war in Afghanistan has profoundly changed the Australian Army and had a significant impact on the whole defence force.

Around 30,000 ADF personnel served in Afghanistan and 41 died there. The vast majority of them fought and worked with great courage and decency, many living in small, isolated patrol bases in remote valleys with the Afghan soldiers they mentored.

They did not just teach the Afghans to shoot and then send them on their way; they fought, and some of them died, with those Afghan soldiers.

Even when trust was broken with 'insider' killings of Australian and other allied soldiers by Afghan personnel who were traitors or disaffected, the Diggers persevered.

Soldiers who ran technical training programs teaching Afghans were immensely proud of the tradesmen they turned out.

Those who built schools and clinics took the same pride in introducing visitors to young Afghan doctors who worked there, tending long lines of sick and injured.

I'll never forget an ill-judged comment I made to one doctor when I noted that while there was so much physical injury around, his clinic had a mental health room.

The doctor looked at me sadly and said: 'We've been at war for decades. Nearly everyone has lost someone. Everyone is traumatised.' Sometimes, in quiet moments, his words, and his face, come back to me and I wonder if he has survived thus far, if he's still

working, and whether his devotion to his patients will keep him there if the Taliban take over, or if they'll simply murder him.

Diggers who built or repaired schools were proud that local kids, especially girls, were being educated there.

There were hope-filled periods when the region around Kabul was calm enough for journalists and other visitors to go to local markets, to roam through shops full of stunning carpets, shawls and cloaks without an armed escort. That was an echo of Afghanistan of the days before the Russian invasion when it was a fascinating, romantic and historical, and surprisingly secular, sojourn on the global hippy trail.

But at the same time, there was



A Special Operations Task Group bearer party walks alongside Sergeant Brett Wood's casket as he is carried to an awaiting C-130 aircraft at Tarin Kot airfield. *Defence images.*

Soldiers from Force Protection Element 14 receive orders before a road move through Kabul, Afghanistan during Operation Highroad.



another war going on in the mountains and valleys a helicopter ride away, where Australian and allied special forces battled through one dangerous operation after another in a conflict fought in darkness and out of sight of the media and the world at large.

A small minority of them got out of control.

This became a true corporal's war in which junior NCOs had the authority of kings.

On top of that, some officers were treated with contempt by a small number of NCOs who'd spent endless nights on dangerous operations and who undoubtedly did know more about fighting and surviving than those sent to command them.

There was also a view by many in the regular army that they'd largely been marginalised through a determination to minimise casualties by using the special forces for just about everything.

When concerns were raised about possible unlawful killings, the army ordered its own investigations. What they uncovered was profoundly disturbing. Something had gone badly wrong on the Afghanistan missions—a deep-seated and distorted warrior ethos permeated parts of the SAS

and an entrenched culture of impunity had taken hold there.

There were 'catastrophic cultural and professional shortfalls' within Special Operations Command (SOCOMD) and 'corrosive' friction between the major special forces units, the SAS Regiment and the commandos. Under the pressure of 20 intense rotations in Afghanistan over 11 years, the special forces had become isolated from the rest of the army.

Any examination of how operations in Afghanistan have changed the ADF has to include a reality check on Justice Paul Brereton's report on alleged ADF actions in Afghanistan. He found a range of atrocities which, had they occurred in Australia, and if they are proven in court, would make the perpetrators some of the nation's worst serial killers.

The word 'woke' has emerged, fairly abruptly, in the Australian language for such events and it's fired around with abandon by those who disagree with any action taken by anyone trying to do the right thing.

It is 'woke', apparently, for senior military officers to be shocked to learn that there's strong evidence that some Australian soldiers, a small minority,

committed war crimes that included killing unarmed Afghan prisoners. And it's 'woke' to object to Australian soldiers wearing the death's head symbols once favoured by Hitler's elite killers.

ADF commanders say the decline has been reversed and a restructured SOCOMD is now positioned to implement the Afghanistan inquiry's findings and to rebuild the trust of government, the defence organisation and the public.

Of all the wars in which Australia has been involved, the Afghanistan conflict was the longest, its intensity and its largely hidden cost reflected in the significant number of veterans who have killed themselves since coming home.

On the positive side, the war taught the army a lot about the necessity for the war fighter and intelligence to be tightly integrated. It led to major technological advances by Australian soldiers and engineers to deal with weapons such as the ingenious improvised bombs, mostly made from diesel and fertiliser, that proliferated there. Those innovations will save lives in wars and peacekeeping missions all over the world.

Brendan Nicholson | aspistrategist.org.au

The invention of the smartphone ranks as one of mankind's most transformative achievements. It is difficult to remember communications and collaboration before this device. It is the platform that is the backbone of our communication, social, work, personal, financial and retail interactions with each other. It has provided easy, cheap and connective computing power to billions of people who before had none.

Not only has the smartphone heralded new ways of doing business and spawned whole new industries, it has embedded a new way of charging for applications and services, made possible only by their widespread adoption at little or no upfront cost to the consumer.

Businesses no longer make money off the consumer, but by selling the consumer's private habits and information to other businesses.

Tracking of customers, like the sophistication of the handsets and the software on them, began as mild, but has exploded into different platforms, hundreds of thousands of different Apps, and highly accurate GPS tracking, altimeters, and cross matching of data.

Most major security software companies agree on one thing – the smartphone is now one of the greatest risks to personal and corporate security today, and the risk is only becoming larger. Hacking tools are available easily on the dark web, along with comprehensive education and training to use them. Ransomware, malware, false information or

just plain downtime all are imposing significant costs in the modern business environment.

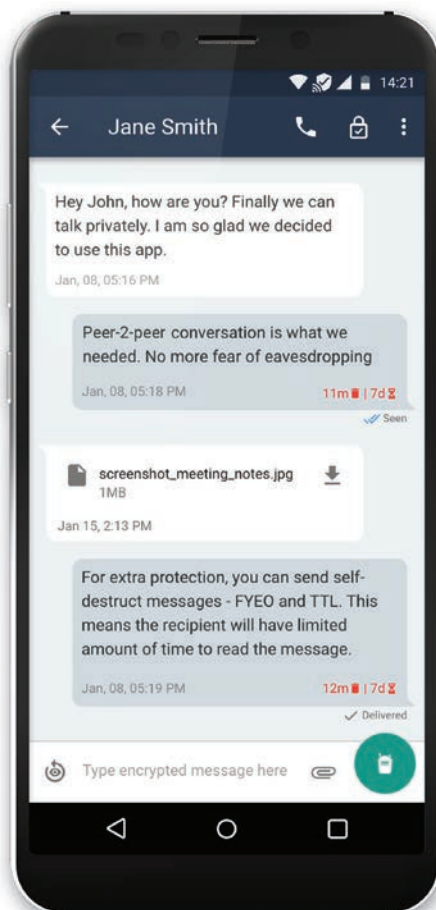
Recent case law in Australia has also meant that information covered by legal privilege is no longer privileged if stolen and publicly released. Businesses can and will be prosecuted for private information never intended for public release.

At Subrosa, we realize that today the privacy of people's communications is at risk. Moreover, we understand that in a world gripped by cybercrime and mass surveillance, intruders can easily steal your data and compromise your correspondence, unless you have the right tools.

That is why, we decided to revive privacy through strong encryption, education, transparency, and control. We eliminate workarounds to security and give users the means to communicate with anyone, anywhere – in total privacy.

Our clients are corporates who want privacy whilst operating in capital markets, law enforcement who require operations to remain secret, multinationals who operate in high risk locations, and many other businesses who understand the value of keeping their private information and business strategy confidential.

We believe in the fundamental right to privacy for all. And we don't just say it, we stand for it by developing solutions that enable people to exchange sensitive information securely, protecting their business, reputation, and personal life.





SUBROSA MOBILE

GUARANTEED COMMUNICATION SECRECY



360° Secure OS

- > Untraceable and wiretap-secured
- > Anti-data-mining
- > Boot integrity check
- > No unauthorized modification
- > Remote wipe

Encrypted Communication

- > PGP email with user-managed keys
- > Encrypted group & private chats
- > Privacy-centered voice & video calls
- > Encrypted file storage
- > Encrypted communication apps' databases

Security Driven Hardware

- > Encrypted storage
- > No manual extraction of data
- > Specially built for privacy
- > Integrity guaranteed by quality-assurance
- > Disabled exploitable sensors

Smooth & Secure Connection

- > Global data SIM card included
- > Coverage in more than 180 countries
- > No additional roaming fees
- > No traceability



ADF health partnerships should be the next step in Australia's Pacific step-up

The Australian Defence Force has long had an important role in providing humanitarian assistance to Pacific island countries. The force has extraordinary capabilities—people, expertise, training and equipment—in delivering assistance quickly and efficiently. The ADF is one of our most important agencies in helping our Pacific islands partners develop capabilities to address a range of security challenges.

My new report for ASPI, *Next step in the step-up*, released 8th April, looks at ways in which the ADF can build health security in the Pacific as part of a new phase in Australia's Pacific step-up.

The community health needs of Pacific island countries will grow significantly in coming years as they endure ever more natural disasters. Climate change is likely to cause ongoing stresses to island health systems through extreme weather events, increased diseases, reduced water quality, heatwaves and population displacement. Calls for assistance from Australian civil and military organisations will almost certainly grow ever louder.

Many countries rely on the unique capabilities and expertise of militaries to provide humanitarian assistance. With assets such as ships, planes and trucks and expert personnel, military organisations are often best placed to deliver food, logistic support, engineering assistance and emergency medical services, especially in times of crisis.

The provision of medical assistance to communities in need is seen as a particularly important way of 'winning hearts and minds'. So-called medical diplomacy can involve short-term relief, such as responding to disasters, or long-term measures to



RAAF Dentist Squadron Leader Alistair Soon provides dental advice to a patient at the Bowali Primary School during Pacific Angel 19-4, held in Lae, Papua New Guinea.

build capabilities.

The US military is often at the forefront of assistance efforts as an integral part of US humanitarian assistance and disaster relief missions.

The United States, and now China, are also increasingly using naval hospital ships to deliver military health assistance. These gleaming white ships certainly capture the imagination. Indeed, who wouldn't be impressed with the idea of a floating hospital, fully staffed and with access to all the latest technology, anchored off a tropical island, delivering the medical services to (hopefully, grateful) locals?

But using militaries to deliver health services is also subject to a lot of criticism. 'Drive-by medicine' by military health professionals on brief visits can do more harm than

good, including by undercutting and discrediting local health providers and providing treatments that can't be sustained. Importantly, they rarely build local capabilities or relationships.

For these reasons, the ADF is rightly cautious about providing health assistance. ADF personnel regularly provide logistics and engineering assistance following natural disasters, including in humanitarian assistance and disaster relief operations in countries such as Fiji, Papua New Guinea, Niue, Samoa, Solomon Islands, the Philippines and Vanuatu. But since 2007 the ADF hasn't provided health assistance as part of those operations.

This has led to the underutilisation of Australia's military health capabilities in the Pacific. Important opportunities to reinforce regional partnerships aren't being pursued.

The ADF is well placed to support the rollout of Covid-19 immunisation programs through transport and logistical support to Pacific island countries, as part of delivering on the vaccination initiative announced at the recent Quad leaders' meeting. We've seen that in recent weeks in PNG.

But the ADF can also play an important long-term role in building health capabilities, while also avoiding the problems traditionally associated with military health assistance. The government should consider a new role for the ADF in the Pacific through developing mutually beneficial enduring military health partnerships.

This would involve the rotation of ADF health professionals through partner hospitals where they would have the opportunity to gain unique frontline experience from local experts, while also sharing their own knowledge and skills with local clinicians. The aim would be to build experience and training for both sides as part of an enduring institutional relationship.

Each one-month rotation would comprise ADF clinicians of different specialties, so, although the ADF presence would endure, no clinical specialty would always be present. ADF clinicians wouldn't bring equipment or consumables to avoid interfering in the hospitals' own supply chains.

For the ADF, the costs of rotating deployments of relatively small numbers of permanent and reserve personnel could be managed as part of overall training costs.

This would not be traditional humanitarian assistance, but would be a true partnership, filling a major gap in the ADF's training needs while also delivering lasting benefits to our Pacific neighbours.

It would also be a big benefit to Australia. Our effective withdrawal of ADF health assets from humanitarian assistance and disaster relief operations since 2007 has left the force's clinical staff with few overseas operational roles. The competencies required for field-deployed health care, for example, in treating tropical



Australian Aid arrives in Fiji on a RAAF C17-A Globemaster aircraft. Defence is providing support to the Government of Fiji following Tropical Cyclone Yasa, as part of a co-ordinated Australian Government response. 2016

diseases and in lifesaving 'damage control' surgery, can't easily be acquired in the Australian civilian system. That leaves an experience gap.

As a result, many ADF clinicians lack experience and mentorship from working in small, remote hospitals in the context of a high prevalence of trauma and infectious disease. Yet those are exactly what ADF field hospitals must deal with in a military contingency. In contrast, many medical colleagues in the Pacific islands are experts in those areas. This means that ADF clinicians may miss important training opportunities necessary to properly fulfil their military roles.

It's also a question of recruitment and retention. Many health professionals join the ADF, as either permanent or reserve personnel, with a view to helping those in need in our region. Current policies effectively deny them the opportunity to serve in the region as ADF members.

There are important opportunities here. An enhanced role for the ADF in regional health security, properly structured, might ultimately come to be seen alongside the Pacific

patrol boat program as a successful example of mutually beneficial partnerships between the ADF and our Pacific neighbours.

David Brewster
[ASPI Strategist](#)



Royal Australian Navy doctor, Commander Darren Delaney provides vital medical treatment during a Bougainville community health engagement as part of Pacific Partnership 2015. *Defence images.*

Astute PTY: A Story of Design, Fulfillment & Support

Four years on since Astute Electronics PTY Ltd gained a permanent footing in Australian soil, we look back at how this challenger brand grew into a leading value-add partner to the world's largest defence primes

When Geoff Hill established Astute Electronics Ltd in the UK over 30 years ago he aimed to build a highly customer-centric organisation to support his Defence customers.

Geoff used three words to sum up how Astute Electronics would differ to other broadline distributors: design, fulfillment, and support. This phrase quickly established the Astute modus operandi.

Recognising the key differentiators of aerospace & defence projects - balancing the latest technology with proven longevity, reliability, and toughness - and understanding the critical nature of this work, propelled Astute Electronics towards the top of defence procurement.

Nearly three decades later, Astute Electronics PTY Ltd (Astute PTY) was launched out of this continuing commitment to its key customers, in particular BAE Systems.

Established in Melbourne, Victoria to support the global defence equipment manufacturers and their sub-tier supply chains, Astute PTY enjoyed a very focussed and personalised start with their Sales &

Marketing Director, Mark Shanley, making frequent expeditions across the globe to identify and support new business.

In January 2018, Nick Molloy, General Manager ANZ, took the lead in supporting the supply agreement to BAE Systems, promoting the business and gaining traction with new defence primes and sub-tier providers. A year later Astute PTY moved into its current home - 65 Victor Crescent, Narre Warren, Victoria 3805 - to be closer to key customers and the Commonwealth Government.

From this location, Astute PTY brings the global supply-chain into Australia through a localised team who understands the complexities of supplying the ANZ markets.

Throughout 2019 Astute PTY continued to grow as they engaged with Defence primes on providing design, fulfillment and support. Astute PTY is strategically placed to deliver innovative solutions from a wide range of hand-picked franchised partners, providing advice on new component design-ins through the Astute 'E-Design' service. They can also leverage Astute's market-leading counterfeit-mitigation process - ACAP - with access to the best of in-house test laboratories in the UK & USA as well as long-term storage capabilities.

In 2020 Astute PTY began to branch out into other sectors. Renel

Ganancial looked after the AUS EAST (NSW/ACT/QLD) customer base 'Defence Customers', while Dave Collins supported the component supply needs of industrial customers with a focus on mining, construction, and transport.

Astute PTY has on average grown by more than 25% year on year. It's proud to serve the needs of more than 40 active customers including the Australian Government, BAE Systems, Boeing Defence, Thales, Daronmont, Codan, and EM Solutions.

Since gaining a foothold in Australia they have been involved in a wide range of notable projects on behalf of the Australian Government (CIOG - KVM Switch; LNIC - DLAN - Jackstay), Boeing Defence (Currawong Program), and Daronmont Technologies (MCRC - Deployable Shelters).

Astute PTY is committed to closer involvement with design & engineering here in Australia to provide full turnkey solutions and support increase towards Australian Industry Content (AIC). There is strong desire is to develop equivalent Design, Fulfillment & Support capabilities as it's UK and U.S. counterparts, comprising:

- Franchised semiconductor, electromechanical, and power components
- Technical support across franchised manufacturers and product categories
- Traceable global component sourcing
- Warehousing and Through-Life Support
- Obsolescence Management - Proactive, LTBs, EOL, engineering support
- Supply Chain Management / 3rd Party Logistics

Astute PTY has enjoyed four very rewarding years of providing Design, Fulfillment & Support and remains very positive about its future in Australia.



ASTUTE

DESIGN

Design Engineering Resource

- Hi-Rel Franchised Distribution
- Technical F.A.E Support
- Engineering Value Clinics
- 45+ Franchise Partners



Amphenol



FULLFILLMENT

Global Component Sourcing

- Safe-Supply in a Volatile Marketplace
- Hard-To-Find & Obsolescence Specialist
- Quality-Driven Distribution
- International Procurement Offices



SUPPORT

Through-Life Support

- Astute Counterfeit Avoidance Programme (ACAP)
- Obsolescence Management
- Long-Term Storage (Nitrogen Storage)



SUPPORTING GLOBAL DEFENCE PRIME OEM'S & THEIR SUPPLY CHAINS

ASTUTE ARE PROUD FRANCHISED DISTRIBUTERS OF SYNQOR POWER SOLUTIONS



LEADING SUPPLIER OF HIGH PERFORMANCE POWER CONVERSION SOLUTIONS TO THE MILITARY/AEROSPACE, INDUSTRIAL, TRANSPORTATION, MEDICAL AND TELECOMMUNICATIONS MARKETS.



Australian universities integrated into war drive

South Australia is rapidly emerging as a focal point for the militarisation of the country's universities. Several research and development (R&D) partnerships between military contractors and universities in the state have been announced during April.

Three South Australian institutions - all situated in the state capital, Adelaide - have joined the French Australian Laboratory for Humans-Autonomous Agents Teaming, also called CROSSING. The University of Adelaide, Flinders University, and University of South Australia will enter CROSSING in collaboration with the French National Centre for Scientific Research, French technological university IMT Atlantique and French maritime military contractor Naval Group.

The Naval Group was listed in the online magazine *Defense News* as the world's 30th largest defence contractor in 2020.

Announced in February, the new lab will focus on human interaction with autonomous systems. The lab's director, Professor Jean-Philippe Diguët, said: "The CROSSING lab will bring together leading French and Australian scientists from artificial intelligence, machine learning, computer science, engineering, psychology and human factors." Such research, he said, would be used to advance the way operators control systems on ships, and improve human performance.

CROSSING codirector, University of Adelaide's Anna Ma-Wyatt, said

the lab will "develop new ways for humans to work with robots and autonomous systems." Anne Beauval, IMT Atlantique vice-president, says CROSSING will look at human interaction with autonomous machines in "submarine communication and detection, ocean monitoring as well as digital transformation at different levels of practice (industrial management, command & control)."

While few concrete details are available, such research could potentially be used, among other applications, in developing smaller, cheaper and faster autonomous submarines that can be engaged in underwater military surveillance, border patrol, mine countermeasures and anti-submarine warfare.



REDBACK
Close Combat Family of Vehicles



University managements lauded the announcement as a boon for business, including their own.

Flinders University vice-chancellor Colin Stirling, said the new lab “lifts South Australia’s internationally regarded defence research capacity.” In 2019, when the lab was first proposed, Stirling said it was “yet more evidence of South Australia being an unbeatable place to do business.”

University of Adelaide vice-chancellor Peter Høj boasted: “The CROSSING lab is another dimension in which IMT Atlantique is joining forces with academic and industrial partners to strengthen our positioning in Australia.”

Having established the University of Adelaide’s Australian Institute of Machine Learning in 2018, the university will oversee artificial intelligence and machine learning research at the CROSSING lab.

Last month, Australian defence contractor Safran Electronics & Defence Australasia (SEDA) announced

its largest investment in related research. Subsidised by an Australian Research Council (ARC) grant, \$1.8 million will be pumped into a multi-year collaboration between SEDA and the University of Adelaide, with \$643,565 of the funding coming directly from the government-funded ARC.

SEDA’s project at the University of Adelaide will focus on coordinated autonomous sensing of naval objects in dynamic maritime environments based on artificial intelligence technologies.

Also in late March, Defence Industry Minister Melissa Price announced a partnership between Flinders University and South Australia-based defence contractor DEWC T&E to establish a Centre of Expertise for Electronic Warfare.

DEWC specialises in electronic warfare - the use of electromagnetic radiation to attack or impede enemies - and is owned by former Australian Defence Force (ADF) personnel.

“Having a skilled Electronic Warfare workforce comprising both practitioners and researchers across Defence, academia and industry is key to ensuring future defence capabilities are fit-for-purpose and future proofed,” Price said.

She added: “*The 2020 Defence Strategic Update* outlines increased investment in Electronic Warfare capabilities across all domains. These advanced capabilities will provide the ADF with a strategic and tactical advantage to keep pace with the evolving operating environment.”

The electronic warfare centre is part of the government’s Defence Science Partnership (DSP). The DSP was developed in 2014 by the Defence Department’s Defence Science and Technology Group (DST Group). DST Group’s then chief defence scientist declared that it would “provide a uniform model for universities to engage with Defence on research projects.”

When the WSWS reported on

HUNTSMAN

Joint Fires Family of Vehicles



INNOVATION THROUGH HUMAN-CENTRED DESIGN

Future ready apparel systems for the modern warfighter.



85L capacity for 120 hour operations



45L capacity for 72 hour operations



30L capacity for 36 hour operations



15L capacity for 24 hour operations

LAUNCHING AT LAND FORCES EXPO 2021 IN BRISBANE.

Head to the ADA stand from 1-3 June 2021 to view the range at Brisbane Convention & Exhibition Centre
Australian Defence Apparel | www.ada.com.au | mitch.edward@ada.com.au | +61 3 93534555

the DSP in 2018, 32 of Australia's public universities had signed on to the agreement. Last year, new DST Chief Defence Scientist Professor Tanya Monro ratified a new agreement called DSP 2.0, which has been signed by all 37 public universities.

Monro said last July: "This new arrangement provides a robust framework for Defence to partner with universities and removes the need to negotiate individual contracts for every collaborative project... It's critical that we harness the skills, talents and expertise of the entire innovation network to deliver the best possible outcomes for Defence and Australia more broadly."

Universities across the country are being further incorporated into the military build-up. Among them is the University of Queensland.

In the *2020 Defence Strategic Update*, \$9.3 billion was pledged to the

development of hypersonic weapons - missiles that travel faster than the speed of sound, allowing them to bypass existing missile defence systems and the further development of capabilities such as directed-energy systems.

Research on hypersonic flight has been conducted for over a decade, most notably through the Hypersonic International Flight Research Experimentation program (HIFiRE), which began in 2007. HIFiRE was a collaboration between the DST Group, the University of Queensland, the US Air Force Research Laboratory and defence contractors BAE Systems and Boeing.

UK-based BAE Systems is the world's seventh largest defence contractor, while US arms maker Boeing is second.

HIFiRE was succeeded by the Australia-US Southern Cross Inte-

grated Flight Research Experiment program (SCIFiRE), announced last December. SCIFiRE aims to develop and test prototype hypersonic cruise missiles, able to reach Mach 5 (five times the speed of sound), with the project expected to be completed by the early 2030s.

Royal Australian Air Force chief Air Marshal Mel Hupfeld said in December that SCIFiRE "is another opportunity to advance the capabilities in our Air Combat Capability program to support joint force effects to advance Australia's security and prosperity."

The announcements are just the latest agreements between universities and weapons makers. In 2017, Lockheed Martin opened the \$13-million Science, Technology, Engineering Leadership and Research Laboratory (STELaR Lab) at the University of Melbourne.

Eric Ludlow.

ADA (Australian Defence Apparel) launches future-ready apparel for the modern warfighter at this year's Land Forces Expo.

The 2021 Land Forces Expo in Brisbane will display ADA's key innovations in the Soldier Combat Ensemble sphere.

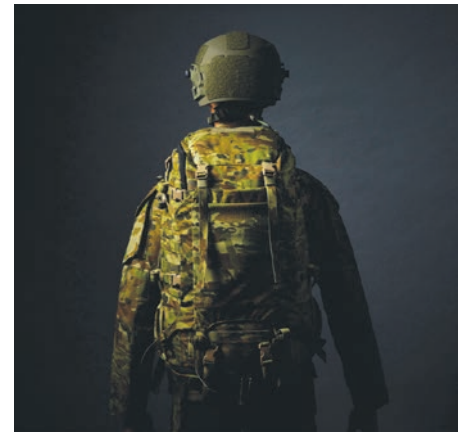
At the 3-day event, ADA will reveal a suite of ergonomic load carriage solutions developed in partnership with Dr Rob Orr from the Bond University Tactical Research Unit. The display will also include interactive next generation and future soldier apparel systems with adaptive camouflage technology, hybrid textiles and cutting-edge designs. The highlights comprise of the first-ever female fit soldier combat ensemble engineered to optimise the female wearer, Exoskeletons for the future-ready modern warfighter and covert body armour engineered in collaboration with fabric tech specialists, Polartec.

ADA's division LEGEAR will co-host on the stand with the latest products in the tactical market. See firsthand the newest products from GHOSTHOOD® camouflage

systems featuring the CONCAMO confusion camouflage pattern, Trango training Infrastructure solutions to build modular and realistic training environments for personnel and new arrivals from UF PRO tactical clothing.

To find out more, visit ADA (Australian Defence Apparel) and LEGEAR at their stand at Land Forces, 1 – 3 June 2021 – Brisbane Convention and Exhibition Centre.

www.ada.com.au or
legear.com.au



Women fitted to fight

Women's roles in combat are taking another step forward with the development and trialling of combat equipment and uniforms designed for women.

Following Army's introduction of women to combat roles in 2016, it soon became apparent that, while there had been significant improvements in soldier combat equipment and uniforms, the unisex design was impacting the performance of many soldiers, including those women who were performing frontline roles.

More recently, Defence's Capability Acquisition and Sustainment Group enlisted Diggerworks to engage with female soldiers in order to develop female-specific combat equipment and uniform options for Army.

With the formation of a dedicated project team in Diggerworks and extensive consultation with female soldiers in brigades throughout 2019, options were developed and recently endorsed by the Chief of Army.

These include ready-now options, which will be introduced in the next 12 months, such as female-specific Danner boots, and future-ready options, such as body armour.

Thousands of soldiers will be involved in trials and evaluations across Australia over the next 12 months.

Director Diggerworks Colonel



Private Navdeep Gill from the 4th Combat Service Support Battalion tries on the prototype Size 0 helmet and H Back Retention System at the Diggerworks Innovation Hub.



Lance Corporal Rebecca Baxter from the 4th/19th Prince of Wales Light Horse Regiment adjusts the prototype female heavy-webbing harness and belt on Private Jessica Russell from the 8th/7th Battalion, Royal Victoria Regiment. *Defence images.*

Gerry Berson said the project was a response to feedback from servicewomen.

"The team at Diggerworks is working quickly to support Army's efforts to respond to this feedback, with a view to enhancing the soldier combat system for all soldiers, regardless of gender," Colonel Berson said

"We have listened to the women who use the items and we want to help Army get the right products to those women on the ground who need it, as quickly as we can – we can learn as we go.

"We have also collaborated with some of our international partners, as they have encountered similar issues with unisex field equipment and combat uniforms.

"Our industry partners are also keen to support and can produce leading-edge options."

In early March, the Diggerworks team collaborated with Army Reserve members from the 4th Brigade in Victoria to showcase some of the female-specific options being introduced and those being developed.

The new Diggerworks Innovation Centre was designed for this purpose – to enable soldiers to collaborate

with Diggerworks staff, many of whom have engineering and technical backgrounds.

Adjutant at the 8th/7th Battalion, the Royal Victoria Regiment, Captain Liz Normand said the team at Diggerworks was creating solutions that would fundamentally change and enhance the capability of women in combat roles.

"They understand that women are not just smaller versions of men," Captain Normand said.

"Their consultation process leaves me confident that the products they develop will be tailored to prevent injury and increase effectiveness.

"This is an exciting project that encourages female participation in combat roles."

All of the proposed combat ensemble options will be designed specifically for women, and in some cases will lead to the introduction of enhanced options for male soldiers as well.

Options being developed range from new load carriage equipment including packs, webbing harnesses and belts, combat uniforms, boots and protective equipment such as body armour, helmets and retention systems, protective undergarments and sleeping bags.

STANDING GUARD WITH RUSH+

© Copyright Images - Bolle Safety

RUSH+ safety glasses ensure maximum protection in all circumstances. Thanks to its adjustable nose piece, flexible non-slip temples and ultra-wraparound fit, RUSH+ provides you with comfort and protection. Available in clear and smoke, RUSH+ features exclusive PLATINUM anti-scratch/anti-fog coating that considerably slows the appearance of fog and scratches.

- + 'PLATINUM' COATING
- + FILTERS UVA & UVB (99.99%)
- + COMPLIANT WITH AS/NZS 1337.1 STANDARDS
- + HIGHLY FLEXIBLE WITH COMFORTABLE FRAME

bollesafety.com.au
Contact us : 1300 138 098

bolle
SAFETY

Welcome to the Jungle

EXERCISE READY FIST

Soldiers from 3RAR's B Coy took on the north Queensland jungle while conducting air mobile and stability operations on March 11 for Exercise Ready Fist.

After a surprise early morning recall, soldiers deployed to the Combat Training Centre – Jungle Training Wing in Tully on Chinooks from 5 Avn Regt, and had their infantry skills put to the test in a non-combatant evacuation operation.

B Coy Section Commander Cpl Tiernan Zanoni-Jones said he embraced the opportunity to lead his section and test their skills in a uniquely challenging environment.

"The training conducted was relatable to an activity we would have conducted as the Ready Combat Team in a real situation," Cpl Zanoni-Jones said.

"Being supported by 5 Avn Regt gave our newer guys exposure to working with outside assets. The activity itself was quite rewarding as it was not something they would get to do in everyday training."

As a foundation-level activity,

Exercise Ready Fist assessed B Coy's readiness and preparedness to complete mission-specific tasks, as well as its ability to operate effectively as a combined-arms team.

B Coy Platoon Commander Lt Johnathon Taylor said he was pleased to see his soldiers effectively conduct soft-knock clearances, key point protection, vehicle checkpoints and escort duties for persons of interest.

"The platoon achieved all learning outcomes and demonstrated a good ability to act independently when communications were limited," Lt Taylor said.

"The most valuable aspect of the activity was the interorganisational integration. Being able to work with 5 Avn Regt, 3CSR and members of 4 Regt, RAA, demonstrated our ability to operate in a joint environment and the challenges that come with it."

Cpl Zanoni-Jones said his soldiers relished the chance to get out in the field and display their warfighting capability after a period of restricted training because of COVID-19.

"The highlight for me was seeing my section doing what they have been taught and applying that in real



Cpl Tiernan Zanoni-Jones, of 3RAR patrols through the jungle during training. *Defence image.*

time; being able to remain flexible and conducting different jobs at short notice and still being just as effective," he said. "It shows that the work my peers and myself conduct achieves the goal of keeping our soldiers at their A game."



Soldiers from 3RAR travel from Lavarack Barracks to Combat Training -Jungle Training Wing. *Defence image.*

EXERCISE BROLGA CRAWL

Townville's 3 Bde kicked off the 2021 training year with Exercise Brolga Crawl from March 8 to 26, which ensured every soldiers' foundation warfighting skills were of the highest calibre.

The exercise was conducted at troop and platoon level to develop individual technical skills as well as basic soldiering, leadership and collective team building within the tactical environment.

For many 3 Bde soldiers, this was the first exercise with their posted unit after recruit training.

Tpr Zoe Shipley, of 2 Cav Regt, said she relished the opportunity to experience training in the field environment.



Lt Elliot Starling (right), from the 2nd Cav Regt, speaks with Tpr Alexander Frahn, following the troop live-fire attack. *Defence image.*

“This is my first exercise,” Tpr Shipley said. “I’m just starting out, but I’ve learnt so much from all the ranks around me, it’s really good to have those mentors.”

“We did troop training, patrols, formations and all the basic stuff. Physically and mentally the training was tough but it was fantastic.”

After a reduced training period, troops were keen to get back out on

the range and put their skills to the test.

Crew Commander 2 Cav Regt LCpl Bailey Cassidy said team morale was high. “Everyone’s attitude and willingness to get out there and smash it out was a lot higher,” LCpl Cassidy said.

“Due to COVID-19 we hadn’t trained in a long time, so to get out and do our job was really good.

The most exciting thing for me was

being crew commander, having a bit more responsibility and doing more.”

Using a suite of advanced equipment and weapons systems in training ensured units within 3 Bde were prepared and ready to respond to all possible scenarios and operational requirements.

Commander 3 Bde Brig Kahlil Fegan said developing small-team skills in a crawl exercise was essential before progressing to more complex scenarios.

“This training is absolutely essential,” Brig Fegan said.

“Over the past 12 months we’ve had the privilege of deploying about 1400 soldiers on operations and the reason they have performed so well and so safely in support of our communities and coalition partners is because they’re so well trained.

“Some soldiers are practising their infantry minor tactics, others are working with very technical and sensitive pieces of equipment and others are using some of the high-end collective warfighting capabilities such as the M1 Abrams tank.

“We’re looking at always being future ready and embracing new technologies to give us a competitive advantage on the battlefield.”

Soldiers from 2 Cav Regt engage an enemy position with an Australian Light Armoured Vehicle’s 25mm M242 Bushmaster Chain Gun during a troop live-fire attack. *Defence image.*





INNOVATIVE ENGINEERING, ELECTRONICS DESIGN, MANUFACTURING AND TESTING

ELEXON ELECTRONICS
EXPECT EXCELLENCE

- Product Lifecycle Management from concept through, design, manufacturing and service
- Turnkey Manufacturing of complete systems
- Supply Chain Management (import and export)
- Compliance & Endurance Testing
- In-house testing
- Prototyping
- Queensland's most advanced SMD assembly line including:
 - Jet solder paste printing
 - Vacuum vapour phase reflow
 - Intelligent Inventory management
- Onsite X-Ray inspection
- Full traceability at component level



**We are exhibiting at
Land Forces 2021!
Visit us at our booth
AIDN2/Great Hall.**

CONTACT: info@elexonelectronics.com | t: +61 7 3193 7140 | 253 Leitchs Road • Brendale QLD 4500 | www.elexonelectronics.com



Land Forces
AUSTRALIA *INDO ASIA PACIFIC*
INTERNATIONAL LAND DEFENCE EXPOSITION
1 - 3 JUNE 2021

BRISBANE CONVENTION & EXHIBITION CENTRE AUSTRALIA

www.landforces.com.au

“Government support has been crucial for our development and defence preparedness,” says Frank Faller, CEO of Elexon Electronics, an innovative Brisbane-based electronics engineering and manufacturing company.



CEO Frank Faller

What does Elexon Electronics offer the Defence industry?

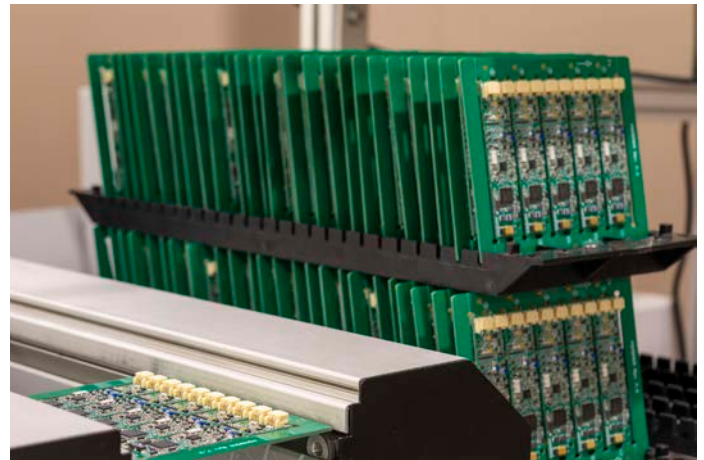
Our greatest strengths are our highly skilled engineers and a state-of-the-art manufacturing facility. Our engineers have proven ability to think outside the box. Our own IPs in blast-proof technologies for the harsh mining industry as well as battery management systems and IoT are transferrable to the similarly harsh conditions of the defence environment. What large defence suppliers often need is

someone who can help with system integration, someone who provides the ‘glue’ to combine various system components. Our advantage is that we offer engineering as well as manufacturing solutions, all under one roof.

What defence projects has Elexon participated in so far?

Elexon is actively involved in all the activities AIDN QLD organizes. We have taken part in a number of Defence and Aerospace capability development workshops, such as Quad Charts development and pitch mentoring training. We’ve had the opportunity to live pitch to the federal government’s Department of Defence, Rheinmetall Defence Australia and Hanwha for the Land 400 Phase 3 opportunities. This year, Elexon will be showcasing its defence capabilities at the Land Forces 2021 and Avalon Airshow 2021 in Melbourne.

Industry engagement and networking have helped Elexon secure our first important project with EM Solutions (EMS) by delivering RF PCB assemblies for their marine Satcom terminals. EMS is also a Tier 1 supplier to the Australian



Navy and major Defence contractors such as Raytheon and BAE for naval projects.

Currently, Elexon is tendering for manufacturing work with the Land 400 program, and exploring opportunities for engineering collaboration in space program applications.

It is well known that Defence is a complex and challenging industry to work with. What made your decision to start this uncertain journey?

A couple of years ago we made a \$2million investment in our manufacturing capabilities. The result is a truly world-class production system that puts Elexon Electronics on the map of advanced manufacturing in Australia. This enables us to provide a fast turnaround service for prototyping and component level traceability, and to deliver consistent and uncompromised quality on the most challenging PCB assemblies. We wanted to utilize this amazing potential and participate in projects that are unique in the quality of the final product.

What is the latest development in Defence readiness for Elexon?

Technological progress never stops; especially for Elexon. In this fast-evolving industry, it is crucial to focus on continuing to build agile capabilities. Our next step is a significant investment in new testing capabilities.

We recently engaged with CDIC and applied for their Advisory and Facilitation Service. CDIC has provided us with invaluable exposure to the Defence industry and a chance to build connections with defence prime contractors. Thanks to their grant support, we have been able to develop our defence market strategy. We were also able to commence our DISP membership preparation project and embarked on a new chapter in Quality Management. Our plan is to be AS9100D and ISO 14001 certified by the end of 2021.



GLOBAL. BUSINESS. LEADERS.

MBS MBA. Your six-letter CV.

As a member of the Australian Defence Force, you have the skills to lead and stand out. Wandering Warriors have partnered with us to provide a new MBA scholarship to help returning soldiers transition into civilian life through business. To find out more, visit mbs.edu/warriors

In partnership with:



MELBOURNE
BUSINESS
SCHOOL



Re-imagining the future

The Chief of Army Symposium was a showcase of innovation and new ideas.

Army highlighted the importance of regional engagement and industry collaboration during the recent Chief of Army Symposium 2021, held at the Brisbane Convention Centre from April 19 to 20.

The CA Symposium brought together Defence, international partners, science and technology experts, academia and industry to discuss the issues facing Army and the region in the next decade.

“Your ideas and perspectives help us think beyond where we are today and help us imagine or, indeed re-imagine, the future,” CA Lt-Gen Rick Burr said.

A highlight of the symposium was the panel discussion regarding regional challenges where the CA was joined remotely by his counterparts, the CAs of India, Indonesia, Japan and Singapore.

“Talking about challenges and opportunities among our regional military leaders was very powerful,” Lt-Gen Burr said.

Lt-Gen Burr said it was a great example of the ways in which Army has adapted to new ways of collaborating and contributing to an Indo-Pacific that is stable and prosperous.

“They shared their perspectives on the strategic challenges that we are confronting and how we might get after them,” he said.

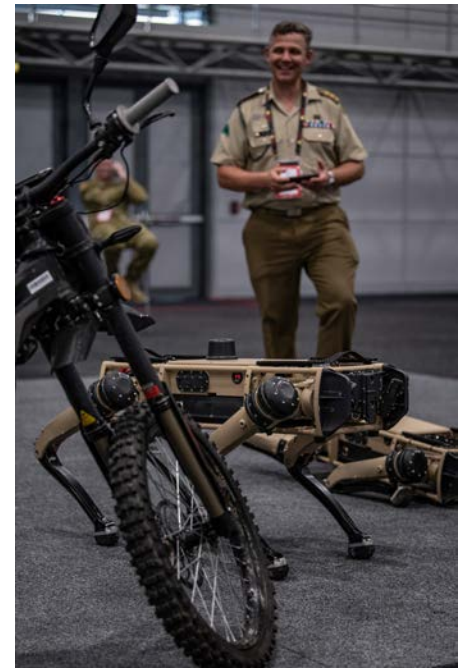
The Army’s support to Australian-led technology, partnerships with academia and industry, and innovation was also bolstered by the Army Innovation Day, Army Robotics Expo and the Quantum Technology Challenge.

Lt-Gen Burr said the two-day event has given ADF personnel, academia and industry partners the chance to get hands-on with the latest technology and innovation to support our “Future Ready” Army.

The Army Innovation Day had more than 21 Australian industry partners pitching ideas to meet Army’s commitment to energy and environmental resilience.



Above: Chief of Army, Lieutenant General Rick Burr, AO, DSC, MVO gives his opening address. Opposite: The Ghost Robotics quadruped robot is presented at the Robotics Expo and Quantum Technology Challenge.



“In particular, on Innovation Day there were examples of investing with small companies who have great innovative ideas, who we’ve worked with to develop their ideas and turn them into products to integrate with capabilities that we’re using in the Army,” Lt-Gen Burr said.

“It was really exciting. There was a real buzz in the room and in the exhibition hall where people were displaying their ideas to us.”

The Army Robotics Expo featured displays and demonstrations from more than 55 Australian owned and led businesses including optionally crewed vehicles, aerial systems and emerging soldier technology.

“I am proud to support the exploration of disruptive technologies,” Lt-Gen Burr said.

“It highlights our commitment to working with some of the best and brightest to learn, understand, prototype and experiment with potential capabilities for the Army.”

The Quantum Technology Challenge (QTC 2021) provided a forum for Australian academic and industry organisations to pitch their ideas to

Army personnel on how quantum technology can result in military advantage for the Army.

Head of Land Capability Maj-Gen Simon Stuart launched Army’s *Quantum Technology Roadmap* at QTC 2021, and said the event was the perfect chance to showcase Australian technology and its importance to Army. “We will see a global increase in the use of these technologies in the future, and they will offer significant military advantage to early adopters,” Maj-Gen Stuart said.

The symposium also brought together junior and senior enlisted from across Army in the Junior Leaders’ Forum and Senior Enlisted Conference to discuss the behaviours so vital to successful engagement in our region.

“People who are enabled to operate at their peak are the foundation of our capability and credibility as a combat force,” Lt-Gen Burr said.

“Our success will depend on teams who are well led and who are accountable for what they do.”

This year’s symposium was the first to be held since 2018, and there are plans for another event next year.

Multiple Channel Image Processing and Object Detection Using Artificial Intelligence



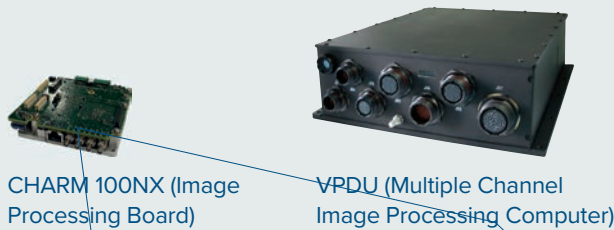
The Vision4ce VPDU (Video Processing and Distribution Unit) is a rugged multiple channel image processing computer used for processing and distributing video in system comprising multiple video sources which need to be processed and routed to multiple video displays.

The Vision4ce CHARM 100NX is an image processing board based on the NVIDIA Jetson Xavier NX module, the world's smallest AI supercomputer used for machine learning applications.

All products can be customised for use in manned and autonomous systems.

Capabilities

- Multiclass Classification and Object Detection
- DART, real-time, low latency target tracking
- Video Compression and Recording – H.264, H.265, M-JPEG
- Electronic Image Stabilisation
- Image Enhancement
- Camera Control
- Servo Platform Control
- Multiple, Parallel Processing Channels
- Multiple and flexible video interfaces
- Open architecture software
- FrameWorkx – open software image processing pipeline
- Support for Linux or Windows OS
- Qualified to military standards (including gun shock)
- Suitable for autonomous applications



CHARM 100NX (Image Processing Board)

VPDU (Multiple Channel Image Processing Computer)

VISION4CE.COM
 UK +44 (0)118 979 7904
 AUS +61 (0) 882 789 140

WWII Secret Tour

101 buildings, \$1,400,000 spent and 3500 American Servicemen! Why Charleville? What was the secret? Visit 7 different sites, on this guided



WWII SECRET BASE

WWII Secret Base

Travel back in time to 1943 and experience what life was like for over 3,500 United States Army Air Force servicemen based here in Charleville.



Qantas Drive , Charleville, 4470, Qld | (07) 4654 8371 | www.experiencecharleville.com.au

Following the autonomous leader

Future convoy commanders might not have any troops to worry about with the rapid development of autonomous systems that can be fitted to almost any vehicle.

A collaboration between Deakin University and Army has produced an autonomous leader/follower vehicle system that could result in unmanned convoys of today's vehicles.

They are fitted with actuators of their controls, along with fused lidar, radar, ultrasound and 3D-Z cameras, then programmed to follow a lead vehicle.

That leader could be driven by a soldier behind the wheel, back on base from a computer or automatically follow a set of GPS waypoints – perhaps bringing an end to the days of formal convoy orders.

Project leader Prof Saeid Nahavandi of Deakin University said Army's remit was to remove the danger and workload from soldiers, while keeping humans "on" the loop, rather than "in" the loop.

"We take away all of the mundane tasks and danger, but a human is always in control, making the decisions," Prof Nahavandi said.

Follower vehicles can also be programmed to trail anything from a drone to a walking person.

The system operates via 4G, GPS, satellite and other radio frequencies and was fitted to a 40M MAN truck for the first public demonstration at the Army Robotics Expo, but it can be fitted to any vehicle.

"My project was supposed to be for outdoors, but I was asked to do the demonstration indoors, without GPS. But we did it. It works in a GPS-denied environment autonomously, which we have tested previously," Prof Nahavandi said.

The first variant with a large battery and controller was the size of a fridge,



Chief of Army Lieutenant General Rick Burr AO, DSC, MVO, rides as passenger in an autonomous Australian Army 40M Truck at the Robotics Expo and Quantum Technology Challenge at the Brisbane Convention and Exhibition Centre. *Defence image.*

but a second generation uses vehicle power and fits inside a Pelican case.

All taking about two hours to set up.

"Final size will depend on the processing power," Prof Nahavandi said.

"Mobile phones these days have so much capability that an old space shuttle didn't."

Follower vehicles also instantaneously respond to changes from the leader in real-time, meaning they can simultaneously reverse into parking bays.

If vehicles are cut off or a leader destroyed, another vehicle can become the leader or a human controller can designate one remotely.

This means the new leader can lead remaining vehicles around the obstacle.

Prof Nahavandi's team did perform some tweaks to refine performance out field. "In those conditions we've

tried switching off some of the sensors to ignore leaves and small branches," he said.

Work on the project began in December 2018 and Prof Nahavandi said operational use could be only months away.

"The system is functional, we've demonstrated it, from here it's about exercising it on bigger vehicles," he said.

The system currently supports four follower vehicles, but the team are looking to increase this to eight.

They would then refine the technology to optimise for heavy rain, snow and dust. Prof Nahavandi believed that might take another year.

The team can also include a secure, mobile cloud at the back of a vehicle to support additional Ai processing out field for requirements beyond autonomous vehicles.

Army News

Optima Powering up at Land Forces

R&J Batteries and Clarios are teaming up to bring Land Forces a stand full of the Ultimate Power Source – Optima Batteries®. Set to land at the Brisbane Convention centre between the 1st and 3rd of June, the Land Forces International Land Defence Exposition will be showcasing the best equipment and technology for the defence industry. Stand GL4 in the great hall will be where you can find the R&J Batteries team with answers to why Optima is the approved battery for the U.S. Military.

Optima Batteries are built to be the ultimate power source for extreme applications. The range features a series of colour-coded high-performance AGM batteries known as Red Top®, Yellow Top® and Blue Top®. The Red Top battery is designed for automotive applications, the Yellow Top battery for deep-cycle applications while the Blue Top battery is ideal for marine applications. Each battery is structurally designed to provide the application with the most power for the longest period of time.

The key feature of Optima Batteries, and why they have been chosen as the approved battery for the U.S. Military, is their unique Spiralcell Technology®. This technology is based on a series of individual cells composed of two pure (99.99%) lead plates, coated in a precise coating of lead oxide and spiral wound into a coil rather than a row. This innovation in battery design provides a number of benefits such as 15x more vibration-resistance, up to 3x longer life and up to 5x more cycle life compared to conventional lead-acid batteries. Optima's Spiralcell Technology provides higher starting power and quicker recharge compared to other flat plate batteries in the market. The unique cell design also enables it to hold its shape even under harsh weather conditions and corrosion which conventional batteries are not built to withstand.



Optima batteries are a premium choice for vehicles with large power demands or for customers who seek greater reliability and longer life expectancy from their batteries. Due to the in-built Spiralcell Technology, Optima Yellow Top batteries have both deep-cycle and starting capabilities. This makes Optima Yellow Top batteries an ideal choice for extreme applications that have greater demands such as needing to withstand the abuse of 4WD off-roading, cranking out decibels or the ability to withstand harsh environmental conditions. Optima Yellow Top batteries are also suitable for starting applications requiring reliability such as military vehicles, emergency services, road transport and agricultural machinery. Applications with numerous accessories such as running lights, winches, hydraulics or a high-performance stereo/AV system will also benefit from being fitted with an Optima Yellow Top battery.

Recently added to the Yellowtop range is the Optima® H6 battery which is specifically designed to fit more vehicles requiring a DIN fitment (recessed terminals) solution. The internal chemistry of the OPTIMA H6 is perfect for the high-energy and cranking power needed in DIN applications. Built differently to other batteries in the range, the H6 Yellowtop battery features Optima's exclusive Pureflow Technology™, an amazingly durable, non-spillable, AGM battery featuring flat-plates engineered with 99.99% pure lead, increasing plate count and surface area for maximum power and battery life.

R&J Batteries is one of two approved Optima distributors in Australia and New Zealand. Celebrating 25 years of success, the battery distributor is one of the fastest growing battery companies in Australasia. With 25 company-owned branches and more than 8,000 distributors in Australia and New Zealand, Optima batteries are within reach at any R&J Batteries location or stockist.

See us at stand GL4 at the Land Forces Expo 1-3rd June or learn more at rjbatt.com.au or by calling your closest R&J Batteries branch on 1300 769 282.



*Your official OPTIMA® Battery
importer & distributor.*



Approved Battery for the U.S. Military




Land Forces
AUSTRALIA **INDO ASIA PACIFIC**
INTERNATIONAL LAND DEFENCE EXPOSITION
1 - 3 JUNE 2021

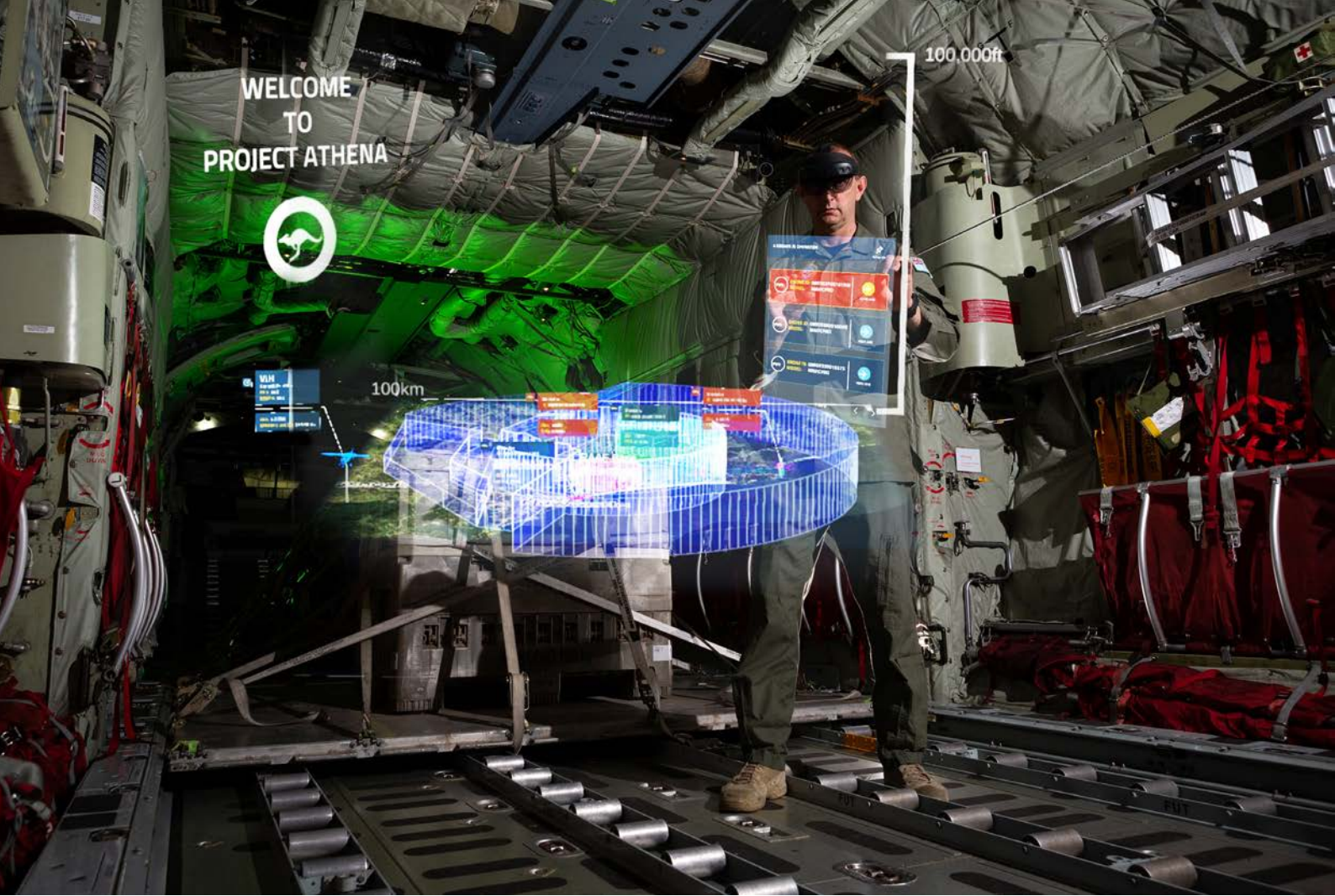
Visit us at
STAND GL4
in the Great Hall



BRISBANE CONVENTION & EXHIBITION CENTRE AUSTRALIA

www.landforces.com.au

Wholesale and trade enquiries welcome / 1300 769 282 / rjbatt.com.au



Looking to the Future

Virtual reality is providing a new way of looking at battlespaces

Air Force's Plan Jericho Disruptive Innovation team is taking mission control operations to the people with virtual reality.

Despite the technological leaps since the space program of the 1950s, the data available for decision-making in control rooms has largely remained unchanged, and the decision-makers still rely on being in a specific location.

WGCDR Alex Gibbs, from the Jericho Disruptive Innovation team, said he felt sure there was a smarter way of working.

"Instead of sending our people to concrete bunkers around the country, what if we were able to provide them with the information, they need to make quick, informed decisions, wherever they may be?" WGCDR Gibbs said.

It was this question that led WGCDR Gibbs and a team of experts to develop a powerful virtual operations room using Microsoft's HoloLens 2 headset – providing an augmented reality view of the world.

"We can project a hologram of the battlespace in front of the user," WGCDR Gibbs said.

"Users can quickly understand where all the various pieces are – for example aircraft, drones, elements on the ground – and they can make decisions at what we call 'the speed of relevance'."

HoloLens supports multiple levels of data and brings together different live feeds and internal applications, presenting them to the user in a personalised, clever and simple way.

The team currently uses data from sensors, 3D terrain images and air-space boundaries to allow the HoloLens user to see everything on the ground, in the air, and in space.

But there are other possibilities.

"The data that we can plug into HoloLens is really endless," WGCDR

Gibbs said.

"It is a very very, flexible system."

The team is using Microsoft's Azure cloud-based infrastructure to support sensors, data and users anywhere in the world.

Flexibility is the key benefit to this innovation.

"The most important thing is that it can be used anywhere. The user can be in an aircraft, in a tent, or on a ship," WGCDR Gibbs said.

The applications for the system are also limitless and it has a further benefit: substantial cost savings.

In addition to saving money spent on the real estate, computers, monitors, and pipes needed for a traditional mission control room, the HoloLens itself costs only \$5000 per headset and is light and easy to carry around.

Phase one of the project was successfully completed at Williamstown last year.

"We are now in phase two where we are rolling it out for every airbase in Australia, with an improved user interface and all the lessons learned from phase one," WGCDR Gibbs said.

"It's the way Jericho Disruptive Innovation likes to run projects in roughly six month blocks.

"We try to do things in small chunks so that we can decide: 'Yes, this is a winner' or: 'Okay, maybe we need to adjust the way we're approaching this'."

The HoloLens project has already won the support of Head of Air and Space Capability Air Vice Marshal Catherine Roberts.

"This is what a future, agile Air Force looks like," Air Vice Marshal Roberts said.

"We're taking data to the people rather than people to the data."

"It's the kind of enhanced capability we can achieve when we break down

traditional mindsets and models."

Jericho Disruptive Innovation has partnered with the Chief Information Officer Group (CIOG) innovation team and Telstra for the project.

CIOG has provided the critical enabling infrastructure, such as the Azure cloud computing platform, and facilitated the ground-breaking information communications technology pieces.

Telstra, which has developed HoloLens applications for several major Australian companies, is doing the software development for the HoloLens device and the cloud infrastructure.

The project team is using agile methodology for software development and collaborating with the air traffic control community, the Security Forces Committee, and air crew to bring the best of their combined knowledge and expertise to the virtual operations room concept.

As a world-leading initiative, the team is getting specialised support from Microsoft.

If you have a disruptive idea or innovation, you can submit it directly to plan.jericho@defence.gov.au

Samara Kitchener

Have you got a story



Contributions by way of articles and photographs are invited from readers of Peacekeeper in the interest of promoting the Association.

Contributions should be sent to:
Kris Milne
communicationsmanager@peacekeepers.asn.au

The APPVA reserves the right to edit all articles submitted for content, length or format.

BE A PART OF A GREAT COMMUNITY AT ELLIOT SPRINGS

Townsville's stunning new residential address, Elliot Springs, is experiencing exciting growth that you'll want to be part of. The central café and garden nursery are open and there's plenty more on the horizon, with the petrol station and retail due to open in mid-2021.

Located just 15 minutes from Lavarack Barracks, Elliot Springs is Townsville's largest master planned community and ideal for first home buyers, families and investors alike.

The connection to wide open spaces, outdoor recreation and Townsville city make Elliot Springs a great place to come home to after a busy day on base, with plenty of opportunities to grow and make lifelong friends.

As the master plan comes to life, the community will offer residents the opportunity to walk children to school, cycle to the shops, or spend time with friends and family in the park or at Bindal Ridge.

More than one third of Elliot Springs will be open space with an expansive network of playgrounds, landscaped parks, sporting fields, bushland corridors and native habitat sanctuaries linked together by walking and cycling paths.

With more green spaces, 360-degree mountain views, big



backyards and a diverse choice of homes at affordable prices, Elliot Springs is set to become one of region's most popular neighbourhoods.

Whether you're dreaming of easy, open plan living, a large family home or a low maintenance block near parkland, this community has a site to suit. Choose to custom build or select one of the many house and land packages available. Housing guidelines offer ideas to make the most of building for the Townsville climate and lifestyle.

Award-winning Wadda Mooli Park is the community's first district park and a major drawcard for families. The all-abilities playground is a popular

destination for Townsville residents and offers a wide range of activities, equipment and obstacles so children never get bored of climbing, riding or swinging.

Within the park you can also take an exercise class, kids can join the soccer club, the whole family can enjoy mountain bike and walking trails as well as The Hub café.

With up to six schools planned, including two high schools, plus childcare centres and community business facilities, learning will be open to all ages.

Visit the display village at Elliot Springs for home inspiration and to talk to builders about designing and building your new home. Explore the homes from twelve of Townsville's best builders in one great location; the inspiration for design, layout and styling is endless.

Affordable house and land packages and current record low interest rates mean it's never been a better time to buy and build a new home at Elliot Springs.

Speak to Meryl at the Elliot Springs Sales and Information Centre, 28 Vista Place, Julago. Call 1800 881 091 or visit elliotsprings.com.au or follow us at facebook.com/elliotspringstownsville.



BE PART OF TOWNSVILLE'S NEWEST NEIGHBOURHOOD



15 minutes
from Lavarack
Barracks



Buy land at Elliot Springs from \$139,000!

At Elliot Springs, we're about more than just houses. You'll find real community spirit and more ways to enjoy life as neighbourhoods grow.

Visit the **Elliot Springs Sales and Information Centre**, 28 Vista Place, Julago.

Contact **Meryl Bloomfield** on **0429 313 935** or **elliotsprings.com.au**

 facebook.com/ElliotSpringsTownsville

Whilst Lendlease takes care in preparing this advertisement, no warranty, express or implied, is given as to its accuracy. Pricing is correct as at May 2021 and subject to availability. Images are for illustration purposes and are indicative only.


ELLIOT SPRINGS

 **lendlease**

Why Darwin should be the crossroads of the Quad



The Quad is back in action. Australia, India, Japan and the US formed the Quadrilateral Security Dialogue in 2007 in the aftermath of the Indian Ocean tsunami, but it foundered in 2008 due to lack of support from its members. Its resurgence began in 2017, when the changing strategic circumstances in the Indo-Pacific led to a desire for the four democracies to once again work together. The face-to-face meeting of the Quad foreign ministers mid-Covid-19 pandemic in Tokyo in October saw that desire become reality.

The meeting signalled greater security cooperation among the members. A month later, all four nations participated in Malabar 2020, a high-end maritime warfare exercise hosted by India. Importantly, Malabar 2020 was the first time since 2007 that Australia had been invited to participate in what had evolved from a 1992 bilateral US–India exercise, then with the inclusion of Japan, to a premier trilateral activity.

A further foreign ministers' meeting was held in February and the

inaugural Quad leaders' summit was held virtually on 12 March, where in a joint statement the leaders stressed their commitment to a free and open Indo-Pacific. While not explicitly stating any security initiatives, the underlying message was clear: Quad members will work together to counter threats.

As Quad security cooperation further evolves, it's in Australia's interests to assume a figurative and literal role at the centre of the security partnership and drive an enhanced engagement program among all four members.

Geography matters. For ships and aircraft, transiting between India and Japan takes both time and money. With overfull domestic exercise programs and pressing national commitments, Quad members already find it hard to participate in the current schedule of multinational activities. The likelihood of its members supporting an enhanced Quad exercise program in the Indian Ocean or the Pacific is remote unless alternative arrangements can reduce

both time and cost for the participants.

Geographically, Darwin sits at the centre of the Indo-Pacific and therefore of the Quad. It's roughly equidistant between India and Japan (and US forces in Korea and Japan), providing a central location for forces to meet and exercise with minimal transit time.

For the Indian, Japanese and US militaries, northern Australia allows access to key Australian Defence Force bases, vast air, land and maritime training ranges, and essential logistic support and maintenance facilities. Importantly, the north has a proven track record of hosting and supporting large multinational activities and exercises.

In addition to the US Marine Corps rotation and regular deployments of US Air Force and Navy units, Darwin and the Northern Territory have previously hosted Japanese and Indian forces. The Japan Maritime Self-Defense Force and Indian Navy participated in Exercise Kakadu in 2018 with the Royal Australian Air Force and Royal Australian Navy. In the same year, the Indian Air Force took part in Exercise Pitch Black alongside the RAAF. Both nations were set to return for exercises in 2020, but all activities were cancelled because of Covid-19. Despite the arrival of vaccines, Covid will continue to affect the world, and Australia needs to act quickly to ensure that the pause in activities is not prolonged and momentum is not lost.

To make this opportunity a reality will require Defence and DFAT to develop a proactive and coordinated engagement strategy to convince the other Quad partners of the value of the proposition. It will take large amounts of civilian and military diplomacy that must be underpinned by a well-developed and coherent multilateral combined exercise framework with



The new facilities at Delamere Air Weapons Range. *Defence images.*

Indo-Pacific issues at the core. There also needs to be a greater investment in infrastructure to bring the defence facilities and training areas up to contemporary standards.

The upgraded port facilities at HMAS Coonawarra (including an improved fuel storage and delivery system) and the significant infrastructure upgrades at RAAF Tindal (more ramp space for aircraft parking and greater fuel and armament storage capacity) are vital for the future. However, other facilities, such as accommodation and working areas, are dated, don't meet requirements and require upgrading. Investment in more ship maintenance and repair facilities would also negate the need for time-consuming transits to Singapore or Perth.

The defence training areas, including the Delamere Air Weapons Range, the Bradshaw Field Training Area and the maritime North Australia Exercise Area, provide large, electromagnetically clean ranges over sparsely populated areas, allowing for the conduct of a broad spectrum of training activities. While they have many advantages, they're rudimentary in a number of areas and need upgrades to become truly world-class facilities where modern weapons systems can be operated to their full extent and the training can closely replicate real-world conditions.

Attracting Indian, Japanese and

US forces to northern Australia is but one part of the equation. Australia also needs to enhance its own presence in the north. There can be no perception that we're outsourcing our security to our Quad partners.

Our air force and naval presence in the north is assured. F-35A Lightning II aircraft will be based at RAAF Tindal, there are regular rotations of P-8A Poseidon, F/A-18F Super Hornet and EA-A8G Growler aircraft through the Northern Territory, the RAN's offshore

patrol vessel fleet is based there, and major surface combatants make regular visits. The Australian Army presence in the north is not as robust, and that must be addressed, although replacing the Tiger helicopter with the Apache will boost capability. When it arrives, the Apache will be able to be networked with RAAF, RAN and visiting Quad forces to make it a true multidomain weapons system.

Establishing Darwin and the Northern Territory as the 'crossroads of the Quad' would come with many tangible and intangible benefits. It would strengthen the security relationship between the members, with and have Australia at its core. It would provide the ADF with more high-end combined training opportunities and, as security cooperation within the Quad expands and matures, so too does the chance to further develop and improve the capabilities of northern Australia. Importantly, a direct result of working and mixing together would be an improved professional and cultural understanding and respect between the members—the value of which is beyond calculation.

Tony McCormack
www.aspistrategist.org.au



Naval vessels from the United States, Japan, India, Australia and Singapore take part in multilateral exercises in the Bay of Bengal in 2007.

Rheinmetall Defence Australia Chooses Lorch Welding Technologies.



“As the manufacturer of Australia’s future military defence vehicles and a leading global supplier of defence and security technology to armed forces around the world, it’s clear Rheinmetall needs the best Industry 4.0 welding solutions. We have standardised on Lorch welding technologies made in Germany. Lorch welding products are among the very best in the world. Their combined leading technologies and partnering approach from their German headquarters with local Australian subsidiary and distribution partner Global Welding Supplies in Queensland address our ongoing welding needs and set the standard for supplier partnerships”.

Neil Fitzpatrick – Manager – GSC / AIC – Rheinmetall Defence Australia

Rheinmetall Defence Australia uses the Lorch S Series, a digital Industry 4.0 pulse platform with advanced speed processes: SpeedPulse XT, SpeedArc XT, SpeedUP for all GMAW, GMAWP and FCAW processes. Lorch custom waveforms deliver the specific weld metal mechanical properties required by Rheinmetall to ensure the highest levels of quality and vehicle strength are achieved for the ultimate protection of Australia’s armed forces personnel.



For further information please contact David Wilton: LSP@lorch.eu

Lorch South Pacific Pty Ltd is a subsidiary of Lorch Schweißtechnik GmbH, Germany.

AD4490_AustPeacekeeper_6.21

Photo credit: Rheinmetall press pictures

LORCH
smart welding

Embrace the Technology and Leverage the Possibilities to Drive Productivity and Efficiency into our Tired Welding Industry

by David Wilton, Managing Director, Lorch South Pacific.

Industry 4.0 and Welding

Industry 4.0 is often referred to as “Smart Factories” with the incorporation of cyber physical systems. Built on the connected Internet of Things (IoT), Industry 4.0 is all about digitalisation of automation and improvements to existing manufacturing processes through digital interconnectivity between the operator and equipment.

Why is this all so important? The reason is simple: embedded in the data is untapped potential for process optimisation to drive cost and efficiency improvements. Industry 4.0 will drive the ability to predict when potential problems are going to occur before they happen; open the doors for greater insight, control and data visibility across an operation’s entire welding process.

But Industry 4.0, as revolutionary as it is, is not about replacing the

fundamental art and critical nature of welding. Nothing can replace the skill and craftsmanship that comes from humans behind the hood. Industry 4.0 is an opportunity to update and modernise our welding industry, attract new talent, refresh our methodologies and deliver cutting edge, next generation performance levels. This has the potential to establish Australia and New Zealand as highly capable, globally competitive manufacturing countries in many industry segments.

Lorch – Industry 4.0 Solutions for Tomorrow’s Industrial Challenges

As a global leader in welding technology and innovation for over 50 years, the focus of Lorch Schweißtechnik GmbH is on the development of Industry 4.0 Smart Welding Solutions to drive customer productivity backed with exceptional service and support.

Designed, tested and manufactured in Germany, the development and application of advanced engineered

welding systems is what Lorch do, it’s all Lorch do and is what separates Lorch from many of their competitors.

Today, as we accelerate into Industry 4.0, Lorch is the obvious choice with a complete cutting-edge portfolio of Industry 4.0 Solutions.

LORCH INDUSTRY 4.0 SOLUTIONS



For further information please contact David Wilton: LSP@lorch.eu or visit www.lorch.eu to find a Lorch partner near you.

Defence building key relationships with industry

Defence staff are being given the opportunity to learn from Australian businesses. The innovative Defence Industry Secondment Program is a two-way educational process to increase connection with, and help create a more adaptable defence industry.

Defence Industry Minister Melissa Price officially launched the program in Sydney which ADF personnel and Defence Australian Public Servants can undertake placements industry between two and six weeks.

"I want to see our businesses thrive and this collaboration will ensure our sovereign industrial capacity can continue to support our Australian Defence Force," Minister Price said.

"All hosts and secondees will be supported throughout the program, allowing them to return to Defence with fresh knowledge and skills."

The Minister made the announcement while visiting Jenkins Engineering Defence Systems (JEDS), in Sydney one of the first businesses to take part in the program.

Major Mark Vermeer, from Forces Command, will commence his secondment at JEDS to gain experience working in research and development project management. In turn, Major Vermeer will be able to share with JEDS his expertise and know-how in Electronic Warfare, radar and radio communications.

"The secondment offers me experience in the corporate sector but allows me to lend my experience and insights from the ADF," Major Vermeer said.

"These secondments are a great opportunity to offer a different perspective outside of Defence. By collaborating with industry I will be exposed to different approaches, insights and observations."

Businesses from across the



Minister for Defence Industry Melissa Price, Defence Industry Secondment Australian Army Major Mark Vermeer and Founder of Jenkins Engineering Defence Systems Peter Jenkins during the launch of the Defence Industry Secondment Program.

country will have the opportunity to share their unique knowledge with Defence, including Canberra-based engineering and systems integration company, SYPAQ.

General Manager Consulting, Richard James, believes getting involved in the program is a great way of supporting their 'customer first' strategy.

"We're a veteran-owned business, so we really do have a passion for helping vets, but above and beyond that we want to provide value for money and capability for the ADF," Richard said.

Colonel Dan Hartigan, recently transitioned from full-time employment in the Australian Army to the Active Reserves. He is he undertaking capability development work for the Defence Science and Technology Group and is looking forward to helping bridge the information gap between industry and Defence, which will in turn enhance SYPAQ's ability to support the ADF more productively.

"When seeking appropriate people for this new placement, the Capability Acquisition and Sustainment Group identified Defence Industry Study Course alumni as a natural fit," Colonel Hartigan said.

"The course introduces industry to Defence personnel and vice versa and this secondment program is a natural progression for previous Defence attendees. It should be an interesting and rewarding experience for both SYPAQ and me.

"I have engaged with industry in previous jobs in Defence and this will be a wonderful experience to see first-hand how that engagement is used by industry, as well as influence how industry can engage better with Defence."

To date, 44 companies have registered interest to participate and 71 Defence personnel have submitted expressions of interest. The first placements will take place throughout the first half of 2021.

**LOOKING TO
TAKE THE
NEXT STEP?**

**WALK
THROUGH THE
GREEN DOOR**

- Intelligence and security focused recruitment
- Veteran recruitment
- Specialist consultancy services



**A leading provider of intelligence,
security and recruiting services**

GreenDoor

Call us: 1300 311 605
pathways@greendoor.com.au
www.greendoor.com.au

Uncovering a hairy history

Beards had a long association with sailors long before the hipster movement, and in recent years there has been a growth in all things beard-related.

Navy beard regulations date back to the late 19th century.

Significant changes to facial hair policy were made in 1879 with the introduction of the Queen's Regulations and Admiralty Instructions.

Proud beard-wearing naval historian John Perryman said that in 1862, the officers, petty officer and seaman of the fleet were not permitted to wear beards.

"A shift in the 1879 regulations permitted 'all officers and men' to wear beards," Mr Perryman said.

In a period of history when wood was giving way to steel and sail to steam, fresh water on board, which had primarily been used for consumption and domestic duties, had more vital uses.

"Without fresh water you did not have steam and without steam the ship would not move," Mr Perryman said.

As fresh water was a precious commodity on board, shaving was not considered a priority.

As the regulations of 1879 state, "the use of the razor must be entirely discontinued", a specification that still stands today, as outlined in ANP4426-1203: "when permission to grow a beard is given, the use of the razor is to be discontinued except for the removal of shaggy growth at the extremities of the beard, in particular on the neck".



Commander CJ Clare, Officer of the South Australian colonial naval forces.

Mr Perryman said that after three weeks, "you present to the The long and short of it Beards have long been associated with naval service.

POIS Lee-Anne Cooper looks at the history of facial hair and how regulations governing it have evolved. coxswain and if you have good coverage then you may continue to grow a beard.

"If your face resembles Arizona – full of wide open spaces and you have clumps of hair or peach fuzz – then the chances are you are going to be disappointed.

"They are probably doing you a favour, if I am honest."

A topic of interest within the bearded community is 'terminal length'.

The 1879 regulations gave captains discretion about length, but a luscious long flowing beard is now a thing of the past.

According to Mr Perryman, by the end of the 1980s restrictions in length were introduced but it was common for command to turn a blind eye to long beards.

"Horatio Nelson only had one eye, and would ignore signals from senior officers. [Hence the saying to turn a blind eye]. His flag lieutenant would present a signal and Nelson would hold his telescope to his eye patch and say 'I see no such signal'," Mr Perryman said.

"As long as the beard was wellkept and clean, Navy would tend to turn a blind eye, unless it was a safety hazard."

Current regulations state: 'beards are to be neat, trim and closely cropped, to a minimum bulk of 4mm and a maximum of 50mm'.

Hazards relating to beard length drove the change, with risks of hair being caught, hooked, ignited and reducing the effectiveness of protective equipment.

With aspirations of sporting a beard similar to VADM Sir Allen Everett, First Naval Member and Chief of the Australian Naval Staff, WOET Andrew O'Shea first flirted with the idea in 2000.



WOET Andrew O'Shea shows off his beard at the Russell Precinct, Canberra. Defence images.

"I was posted to *Coonawarra* and my wife hated it, it was jet black and I looked like a criminal out of a bad eighties TV drama," WO O'Shea said.

As his facial hair changed colour with age, WO O'Shea thought he would give the beard another go – and this time his wife approved.

Now boasting a fine example of a naval beard, WO O'Shea said it actually involved more maintenance than being beard-free.

"It needs to be brushed and cut well; it can change a person's appearance completely," he said.

"I thought it would take less time in the mornings – I was wrong."

Mr Perryman said that after almost 150 years of Navy culture, beards still distinguish a sailor from the other services.

"When you leave the service and put on a suit and medals to march on Anzac Day there is very little outward embellishment to identify you as a sailor," he said.

"A lot of ex-serviceman will opt to keep their beard as it is a mark of the sailor."

POIS Lee-Anne Cooper



THE POD CANBERRA

LUXURY SECONDARY RESIDENCES



LUXURY LOW MAINTENANCE LIVING THAT IS AFFORDABLE.

The Pod: 30m²-90m² stunning backyard homes.

Disability compliant, large bedrooms, fixed contract pricing, high quality finishes, attracts a high rental income, packaged up by a **local** family business.

INCLUDES: Double glazed windows, floor & window coverings, fitted wardrobes & doors, stone top laundry & kitchen, soft close cabinet doors, raked ceiling, Velux skylights, appliances & white goods, plans + DA & BA approvals, consultant fees & much more...

WWW.THEPODCANBERRA.COM.AU

Father/ daughter team changing the way we look at granny flats

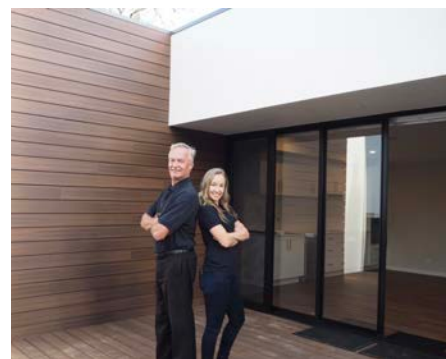
The Pod Canberra was created by Robert Valk and Jacqueline Valk, who have combined experience to create a stunning and modern take on the granny flat/ secondary residence.

The Pod was created to support aging in place, disability use and investment opportunities. These 'backyard homes' have been renting at similar prices to new apartments and have been providing the opportunity for elderly parents to live in the backyard of their family members rather than a retirement or aged care home option.

Rob and his team designed the Pod to what it looks like today. The sleek liner design with dark window frames, timber cladding and acrylic render all tie together for a modern and architectural look.

"The response has been great from customers wanting an all including option with no surprises and it's humbling to see their faces when we handover and let them know they have been a part of helping someone in need" (For every 4 Pod homes that we build for clients, we build a home for a teacher or family in need with the charity called School For Life).

"We are currently building in Canberra and NSW at this stage, but look forward to expanding Australia-wide soon" Jacqueline says. As a family run business, we enjoy using local suppliers and products as much as possible. We also enjoy



handling the whole process for each of our clients from covering the plans, approvals, construction (to the point of being ready to move into with flooring, blinds, Tv on the wall, whitegoods and appliances) to handover.

Whether someone wants a small backyard studio, a large secondary residence or an eco retreat of multiple Pods on one site, The Pod is certainly a great option to look into.

www.thepodcanberra.com.au



Strengthening international ties with push-ups

HMAS *Sydney* has won a novel title and strengthened ties with the United States Navy, thanks to the ability of crew members to do push-ups.

COVID-19 has presented challenges for every unit within the ADF and none more so than the guided missile destroyer *Sydney*.

Currently deployed to the Southern California Exercise Area to conduct combat system sea qualifications trials (CSSQTs) on her Aegis Weapons System, *Sydney* found herself alongside San Diego Naval Base for a two-week period.

But the crew could not go ashore.

Sydney had the company of USS *Harpers Ferry* berthed on the other side of Pier 4 for maintenance which presented as an opportunity for a unique international engagement.

Having watched the crew of *Harpers Ferry* conduct push-ups one day, *Sydney's* physical training instructor Leading Seaman Calum Dawson took the opportunity to strengthen ties between the crews of the ships by arranging a push-up challenge.

The ultimate goal was to determine the 'best crew and toughest ship' on Pier 4.



Male crew members from HMAS *Sydney* compete in a push-up challenge against the US Navy at Pier 4 in San Diego, US. *Defence images.*

"In a COVID-19 environment we have had to adapt to the new normal, including in the physical training space," LS Dawson said.

"The perfect opportunity arose for us to challenge others outside of the ship and strengthen bonds between Australia and our allies."

The April 16 challenge consisted of two teams from each ship – five of the strongest males and three of the strongest females – competing against each other.

Sydney's crew lined her upper decks in support of her competitors while *Harpers Ferry's* challengers took to the pier as they prepared to conduct the push-ups to cadence.

The female challengers were first up. Both teams started strong, but at the 30 push-up mark, the form of the *Harpers Ferry* team started to deteriorate, with all its competitors bowing out by 50.

Sydney's Able Seaman Pamela Mery pushed through to hit an impressive count of 70 push-ups, all without compromising form.

A loud cheer hailed from both ships as the crews were in awe of the

superb performance.

Able Seaman Mery said the event was a great opportunity to compete with some allies while still keeping safe in the COVID-19 environment.

After a clear victory by the *Sydney* females, the male competitors lined up.

Sydney's Leading Seaman Pete Sleeman took out top spot for the males, finishing with 85 push-ups to cadence.

Despite *Sydney's* victory on the day, international relations were the real winner.

Commanding Officer *Sydney* Commander Ted Seymour said the crew appreciated the sportsmanship of their USS *Harpers Ferry* counterparts.

"Being unable to go ashore, opportunities like this push-up competition give us a break from the repetitive nature of living on board a warship for a long period of time during a pandemic," Commander Seymour said.

"Our thanks to *Harpers Ferry* for taking the time to be involved in some friendly competition. We will be ready for a rematch."



Able Seaman Madeline Whatley, left, and Leading Seaman Physical Training Instructor Calum Dawson, right.

OPEN ARMS

Veterans & Families Counselling

> A service founded by Vietnam veterans,
now for all veterans and families

SUPPORTING VETERANS AND THEIR FAMILIES

At Open Arms your wellbeing is our business.
We offer free:

confidential counselling for individuals, couples and families
group programs
transition workshops
peer networks
suicide prevention training
education, self-help resources, and more...

To get support or find out more call or visit:
1800 011 046 | OpenArms.gov.au



SAFE ZONE SUPPORT

FREE ANONYMOUS COUNSELLING LINE

CALL 24/7: 1800 142 072

Safe Zone Support's specialist counsellors understand the military and can offer help to veterans and their families without needing to know who you are.

Calls to 1800 142 072 are answered 24/7,
and are not recorded.

For more Information visit:
OpenArms.gov.au/safe-zone-support

Bridging Train carries precious cargo

Although the Royal Australian Navy Bridging Train (RANBT) only existed for two years, the unit performed crucial work for the Navy and Army.

The Navy engineers, or sappers as they are known in the Army, operated in World War I, working in Gallipoli and the Suez Canal.

The term 'train' relates to the horse-drawn wagons that would move in a train carrying the unit's heavy timber, building materials and equipment needed to build roads, railways and bridges.

All the men were reservists and many were much older than the regular recruits.

The unit was en route to England to be trained in pontoon construction when it was diverted to Gallipoli by the Royal Navy.

Led by Commander Leighton S. Bracegirdle, the RANBT landed at Suvla Bay under fire on August 7, 1915.

The unit's first task was to construct a pontoon pier to enable supplies and reinforcements to be brought ashore.

It was responsible for building and maintaining wharves and piers, unloading stores from lighters (small boats), supplying fresh water to frontline troops, stockpiling engineering equipment, building a light railway for stores movements and carrying out repairs in an open-air workshop.

They constantly had to repair and rebuild the wharves from damage caused by enemy fire and the elements.



An evacuation raft built by the Royal Australian Navy Bridging Train is shown evacuating artillerymen with a field gun in January 1915. The rafts were towed by lighters during the evacuation from Gallipoli.

In December 1915, the decision to abandon the Gallipoli Peninsula was made and Allied troops were soon being evacuated from the beaches under the cover of darkness.

The operation required the wharves to be in constant use and the men of the 1st RANBT built the long crib pier that was crucial to the success of the withdrawal.

They were the last Australians to leave Gallipoli.

After the Gallipoli campaign, the RANBT was transferred to the Suez Canal and El Arish, before being disbanded in 1917.

Eight members of the unit died during its two years of service.

In many ways they were removed from naval traditions.

They trained on horseback in Melbourne, they wore a mash-up of uniforms in army khaki with navy flashes and officer caps and they worked primarily on land.

At one stage, the Army/Navy confusion over where they fitted led to no pay for five weeks and they staged a 'mutiny' in the Western Desert until the situation was resolved.

After Gallipoli, the RANBT served in the Sinai and Palestine campaigns before being disbanded in 1917, when the war activities focused on the Western Front and the engineering work was performed by the Army.

Arunta the 'pride of the fleet'

One of Navy's longest running and most prestigious awards, the Gloucester Cup, has been awarded to the crew of HMAS *Arunta* for excelling in all areas of operation at sea and alongside.

On April 19, the Governor-General General (retd) David Hurley on presented the cup in a ceremony at

Fleet Base West in Western Australia.

"*Arunta* has had an outstanding year, capped off by her support of the ADF's commitment throughout the Indo-Pacific region, specifically in the South China Sea and in support of the United Nations Security Council sanctions on North Korea," General Hurley said.

"You are worthy recipients of the Navy's prestigious Duke of Gloucester's Cup. Congratulations. It's a great Navy day and, today, you are the pride of the fleet."

The Gloucester Cup was instituted in 1946 by then-Governor-General, His Royal Highness the Duke of Gloucester, to recognise exceptional

contribution to the Royal Australian Navy each year by a unit deemed to have displayed the highest level of overall proficiency.

The award has been adapted into the modern Navy to recognise the unit, crew, squadron, clearance diving team or establishment that has excelled in all aspects of their tasking.

This includes mission effectiveness, lethality, safety, reliability, efficiency, currency and competency.

Leading Seaman Luke Gibbons, who is serving in *Arunta*, said the crew was proud to be awarded the cup following a challenging but highly rewarding year that included seven months at sea.

"It's great to be a part of a winning team and especially rewarding to be recognised for our contribution to the Navy and the nation," Leading Seaman Gibbons said.

"The CO really instilled a sense of pride in our ship and I think that had a flow-on effect leading us to achieve



Governor-General General (ret'd) David Hurley, centre, and his wife Linda Hurley present the 2020 Duke of Gloucester Cup to Commanding Officer HMAS *Arunta* Commander Anthony Nagle. *Defence image.*

strong results in both RIMPAC (Exercise Rim of the Pacific) and our regional presence deployment.

"Winning the Gloucester Cup is

a big achievement and I think this award will be a point of inspiration for our ship's company for years to come."

Dawn Service at sea

A Dawn Service has been held aboard HMAS *Anzac* in the South China Sea to commemorate Anzac Day.

The ship's company, currently on a regional deployment in South East Asia, paused to mark the landing of Australian and New Zealand troops on the Gallipoli peninsula on April 25, 1915.

The ceremony included a laying of wreaths and the singing of the Australian national anthem by Leading Seaman Imogen Reiri.

Anzac Operations Officer Liam McMahon played *The Last Post* on the bugle before the crew observed a minute's silence to honour the servicemen and women who have died in all conflicts.

Commander Officer *Anzac* Lieutenant Commander Brendan Horn said the service was held to uphold the Anzac spirit while the ship continued to serve Australia's national interests at sea.

In his address, Lieutenant

Commander Horn said it was a memorable moment for ship's company to spend Anzac Day in *Anzac*.

"Spending Anzac Day at sea is special and even more significant onboard *Anzac*. I can feel a real sense of mateship and I can also feel the support from our family and friends back home," he said.

Also present at the Dawn Service were Royal Navy Lieutenant Commander Edward Smith, who provided the drum beat as the Catafalque Party marched on, and Royal New Zealand Navy exchange officer Sub Lieutenant Keva Ready, who spoke on behalf of New Zealand servicemen and women.

Sub Lieutenant Ready noted that the shared bond between Australia and New Zealand had started on the beaches of Gallipoli and continued today.

"Today, as we remember all those who have served in the Royal



HMAS *Anzac* personnel during the 2021 Anzac Day Dawn Service whilst on deployment. *Defence image.*

Australian Navy, and Te Taua Moana o Aotearoa, we carry with us the mana and the spirit of the Anzacs," she said.

Anzac will return to her home port in Western Australia in May.

Following in famous footsteps

Billy Winkler-Sheean grew up walking the Sheean Walk and hearing proud family stories of the heroism of his great-great uncle, Teddy.

When he joined Navy last month, Recruit Sheean said his connection to Ordinary Seaman Edward ‘Teddy’ Sheean VC definitely played a part in his decision.

“My family always told stories about Teddy Sheean’s courage and his life in Tasmania, and obviously his name is on the Sheean Walk in Latrobe, and there is a memorial to him in Ulverstone,” Recruit Sheean said.

“He was just such a part of family lore and the history of where I grew up and I always had an idea in the back of my head that I might one day join the Navy like he did.”

Recruit Winkler-Sheean, 23, from Devonport, first trained as an electrician before joining the Navy. He is now training at HMAS *Cerberus* to be a boatswain’s mate.

He said he carried the family name proudly.

“I know my family is proud of me; my pop was overwhelmed when I joined. He showed me the replica VC

and other medals Teddy had; he is so proud of me.”

Teddy Sheean was serving aboard HMAS *Armidale* in December 1942 when the ship came under aerial attack from Japanese aircraft.

He manned the ship’s Oerlikon gun and fired at the enemy, hitting at least two of their aircraft.

Despite being wounded, he strapped himself to the gun and continued firing until the ship sank, taking him to his death.

Last year, Queen Elizabeth II posthumously awarded Ordinary Seaman Sheean the Victoria Cross, the first to be awarded to a member of the Navy.

Recruit Sheean said the significance of the first Anzac Day since the VC had been awarded to his great-great uncle was not lost on him.

“I’ve always attended the Dawn Service, and I’ve always been proud of my family name and of Teddy Sheean,” he said.

“This year is even more special as it is not only the first since Teddy was recognised with the VC but also it is my first as a member of Defence.

“It is a huge honour to represent



the Sheean name in the Navy on Anzac Day and every day.”

Recruit Winkler-Sheean said he had been enjoying his training and looked forward to joining a ship and seeing more of the world.

He said he was encouraged by the teamwork and respect that was evident in Navy.

“It’s been a valuable experience, with the training I’ve received and the friends I’ve made. I look forward to getting hands-on in the job and having a proud and successful career,” he said.

New weather forecasting kit put to the test

Navy’s Maritime Geospatial Warfare Unit (MGWU) on April 8 tested its newest deployable meteorological equipment in a field adjacent to HMAS *Penguin* in Sydney.

Conducted as part of Exercise Sparrow, the test was planned and executed by Lieutenant Matthew Bell, a member of the unit’s Mobile Meteorology and Oceanography Team Two.

The main objective of the exercise was to test and familiarise personnel with the components and capabilities of the equipment recently brought into service.

MGWU Commanding Officer Commander Jo Haynes said the deployable meteorological kit was

used to conduct rapid environmental assessments during Defence exercises and operations, including humanitarian assistance and disaster relief and amphibious operations.

“The ability to collect in-situ meteorological data in these scenarios significantly enhances our awareness of the battlespace,” Commander Haynes said.

“Geospatial information is a key enabler to providing a comprehensive and superior understanding of the operating environment to inform command decision-making.”

The exercise required the support of a significant portion of the unit’s team including logistics, communications and engineering elements.

A remote aviation forecasting centre was set up, which comprised an automatic weather station, an upper air sounding system to launch weather balloons and a portable weather radar.

“Exercise Sparrow was an excellent opportunity to demonstrate the capability we can provide with meteorological aviation support to defence operations,” Lieutenant Bell said.

The MGWU provides frontline geospatial support to ADF exercises and operations through deployable teams consisting of hydrographic surveyors and meteorology and oceanography specialists.

The future of robotics and autonomous systems

The crystal ball is a little clearer for Defence's logistics elements and those involved in robotics and autonomous systems with the release of two new concepts by the Vice Chief of the Defence Force Executive.

Released late last year, the two concepts, developed by the Force Exploration Hub, captured ideas to assist in designing the future force.

Author of *Concept for Future Logistics* Major Ian North said concepts assisted in defining the range of force options Defence needed to meet future challenges.

"The critical parts of the concepts are the ability statements, which are the overarching design principles for that component – the things we think it needs to be able to do to give us that advantage," Major North said.

His concept looked at how the structure of Defence logistics could change to support the introduction of technology, create commonality across the ADF and generate more robust and efficient effects.

"We're looking at common training and systems for the three services, then how we can work better with coalition, partners and industry to make those interactions more seamless," Major North said.

"We can exploit those advantages to provide a diversity of options to everything that Defence needs logistics for, whether that is complex warfighting or domestic disaster relief activities."



Members of the first Remote Pilot Warfare Officer course load a ScanEagle unmanned aircraft to the launcher before a flight at Jervis Bay Airfield. Defence image.

The key to developing the concepts was in early engagement with industry and academia, according to *Future Robotics and Autonomous Systems* author, Squadron Leader Robert Vine.

"It's pretty clear that robotics and autonomous systems are one of the strategically disruptive technologies that's emerging and is going to change a lot over the next 20 years," Squadron Leader Vine said.

"We envisage a future where the ADF operates human-machine teams to increase the mass of the force and provide a greater effect for longer, over a greater area.

"There's three parts to that: the

challenges we're going to face in utilising them, the opportunities they can provide us and what the adversarial threat will be from their use.

"The concept explored all the things we need to embrace robotics and autonomous systems, as well as how we can posture to counter the threat at the same time, so the ADF can achieve an advantage."

The logistics and robotics and autonomous systems concepts are joined by the classified Multi-Domain Strike concept.

Further information is available on the Defence website at <https://defence.gov.au/VCDF/Forceexploration/>

Future tech tests reality

Robots controlled with thoughts, or connected to a 360-degree augmented reality simulator thousands of miles away, may be on the cards for the future, pending research being conducted by Defence Science and Technology Group.

"Tactical autonomous systems", as they're called by Integrated Personnel Protection Group Head Tim Bussell, are just the tip of the iceberg.

They're also working on integrating

things such as microphones attached to a soldier's jaw to enable silent speech, and augmented reality heads-up displays on helmets, similar to a video game.

"Someone on the ground who's carrying a weapon, and everything else they need to do, doesn't have time to look down at a screen or joystick," Mr Bussell said.

"We're trying to connect these robots into soldiers' thought

processes, so they can be controlled with gestures, or eye movements or, eventually, be able to think about what they want it to do."

While it might be a long time until you can telepathically check a building before entry, Defence Science and Technology Group has the ability to control robots through the "igloo", part of its Soldier Capability Network.

The igloo, at Fisherman's Bend in Melbourne, is a 360-degree virtual

reality environment, which can be linked to a robot in a remote location.

Mr Bussell said while the long-term goal was a mobile solution, streaming to goggles or a heads-up display, the igloo let his team perfect the underlying technology.

There are all sorts of issues – latency and feedback fidelity are just some – but you have to start somewhere, and that’s what we’re doing.

The network also includes the

Combat Applications Lab in Townsville as well as the Defence Science and Tech

And while there is intent to build Ai into the system, Mr Bussell said it’s unlikely you’ll see a Terminator-esq figure around your local base in the future.

The team works hand-in-hand with Diggerworks and Combined Training Centres.

They use the motto “learn fast, decide early”, an adaption of Lockheed

Martin’s Skunkwork’s motto, “fail fast, fail early”. But the revised motto doesn’t necessarily equate failure to a dead end.

“In science, learning that something doesn’t work isn’t a failure, it’s a step towards the next thing,” Mr Bussell said.

“By avoiding the use of the word fail, we’re focusing on the successes and learning more about our systems so we can either improve on them or discount what doesn’t work.”

Going all out to out-think radar threats

Defence scientist Manik Attygalle is devising unique techniques to keep our military platforms safe. Dr Attygalle’s team is developing ultra-wideband electronic warfare (EW) systems, assessing various unique technologies, both analogue and digital, that will help in developing such systems. “These ultra-wideband systems are essential to counter next-generation threats which are moving to higher frequencies and wider bandwidth,” he explains. “New threats out there are employing sophisticated signal formats and protection technologies that can, for example, jump between frequencies to avoid being jammed. Our next-generation EW systems have to match threat advances in order to be effective.”

Apart from building electronic solutions in-house, this research program also taps into academic expertise. There are currently two collaborative research projects on the go: one with University Technology Sydney (UTS) and Macquarie University (MQ), and the other with the University of South Australia (UniSA).

Unprecedented bandwidths, simple concept

The UTS/MQ project has developed an interesting analogue radio frequency (RF) beam steering system using “meta-surfaces”. DSTG’s engineering facility at the Edinburgh site is supporting the activity by manufacturing prototype systems and carrying out testing. This very special

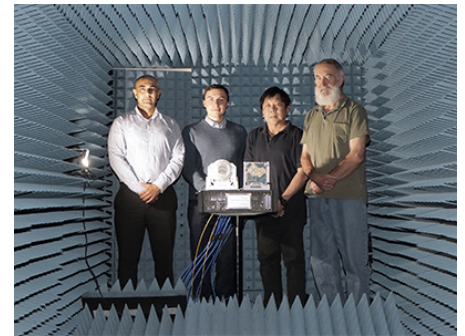
technique moves meta-surfaces to steer or shape an RF beam over a two-dimensional area. Beam steering is important for both transmit and receive functions in many RF systems, either to increase the transmit power or increase detection sensitivity. The research prototypes are achieving remarkable bandwidths.

“What we have is a unique, partly mechanical system. We need to rotate the meta-surfaces to steer the beam, but that can be done very fast,” says Dr Attygalle. The resulting solution is far less complex than other contemporary electronically adjustable radar systems. The research project with UniSA, where Dr Attygalle is currently an adjunct associate professor, is looking at digital solutions to achieve the same beam steering functionality.

Australian-first system capabilities

While beamforming is located at the “front-end” of RF platform protection systems as the signal leaves the transmitter/receiver (transceiver), the team is also examining other subsystem modifications that will help improve ultra-wideband transceiver technology. “We are pushing ahead with ‘back-end’ digital transceiver development as well, because current technology is not capable of dealing with our requirement for instantaneously wide bandwidth and non-continuous frequency bands.”

There are many complexities that come with that combination of



(L-R): Dr Manik Attygalle, Mr Artem Vasilyev, Mr Khee Hue and Mr Mark Gontar in DSTG’s Antenna Measurement Facility.

requirements, such as sensitivities, power, latency and dynamic ranges. That’s why the team is excited to have come up with an Australian-first ultra-wideband transceiver design.

The team’s high-performance circuitry looks like achieving both wide bandwidth and ticking the box on the necessary performance metrics. The long-term plan, in line with Defence’s vision and supported by this project’s Defence stakeholder, will be to transition the solution and associated manufacturing techniques to industry partners, transferring skills along the way and building up industry as a fundamental input to Defence capability.

Dr Attygalle says his interest and passion is driven by working with cutting-edge technology. “As well, this work is addressing a unique capability gap for Defence,” he says. “We are coming up with new solutions using multiple technologies – trying to integrate them to come up with an important new capability.”



Patrick Blaik,
Australian Army, Warrant Officer Class One,
Cambodia, East Timor, Iraq, Afghanistan

OUR CONTINUING STORY

The Australian War Memorial is expanding its galleries to tell stories of peacekeeping, and humanitarian and disaster relief operations.

SHARE YOUR STORY OR DONATE ITEMS

Contact our curators, gallerydevelopment@awm.gov.au.

www.awm.gov.au/ourcontinuingstory



OUR
CONTINUING
STORY

Peacekeeping Stories to be told at the Australian War Memorial

In September 1947, four Australians deployed to Indonesia to act as UN-appointed military observers; they were the world's first peacekeepers. Since then, not a day has passed without an Australian peacekeeper serving somewhere in the world. Australia has made an estimated 40,000 individual deployments to more than 60 peacekeeping operations in more than 30 countries and disputed zones.

By any measure, this is a story integral to Australian military history; but it remains relatively unknown by the general public. Many do not know of the hardships and dangers that Australian peacekeepers have faced, or their successes.

Australian War Memorial Director Matt Anderson is determined to ensure a permanent gallery space is created to speak to these stories, "We owe it to every veteran of every generation to have their service recognised at the Memorial."

"We've had thousands of men and women deployed on peacekeeping operations every day since 1947, and we pretty much tell their story with a beret and a picture. We need to tell the stories of our contemporary operations and the overlooked contributions Australian servicemen and servicewomen have made in the defence of peace and on humanitarian deployments."

Dr David Sutton, a senior historian and curator working on the development of new peacekeeping galleries at the Australian War Memorial, is hoping to contribute to this change, "We are uncovering, through our research, amazing stories of Australian peacekeepers serving all around the world; these are stories that deserve to be told."

"Part of our challenge is that the Memorial has only been actively collecting peacekeeping material for a relatively short period of time. We have some fascinating objects in



Group portrait of members of the Australian contingent to the United Nations Advance Mission in Cambodia (UNAMIC), February 1992. Photo Wayne Ryan, Commonwealth of Australia, P01811.001

our collection, but we know there is more out there. I encourage anyone who has served on a peacekeeping operation to get in touch. We'd love to hear from you, to learn about your service, and find ways to let your story be known to the wider public."

The Australian War Memorial development project will be dedicated to stories of contemporary operations, telling what our nation has done to prevent war and contribute to peace.

Technology allows soldier to continue tradition

For 24-year-old Private Osama Ahmed, Anzac Day has become a sacred tradition he would normally commemorate with his family.

Currently deployed to Vanuatu to upgrade the communication network across the archipelago, this year a Face Time call will be as close as the Pakistan-born soldier will get to his parents in Adelaide.

He is one of 23 ADF members deployed to support phase 2 of the Government of Vanuatu's national emergency radio network.

Trained as a battlespace communication specialist, Private Ahmed is the only radio operator working on the project as part of the remote installation team.

"This project is definitely the most exciting thing I've done in my Army career," Private Ahmed said.

"It is providing me with the opportunity to put my training into action and also learn skills outside my trade.

"Usually I would only be working with the radio, but with such a small

team, I've been helping install solar panels and radio masts."

Since enlisting in the Army in 2018 after studying a Bachelor of Justice and Society at Flinders University, Anzac Day has taken on a greater meaning for him and his family.

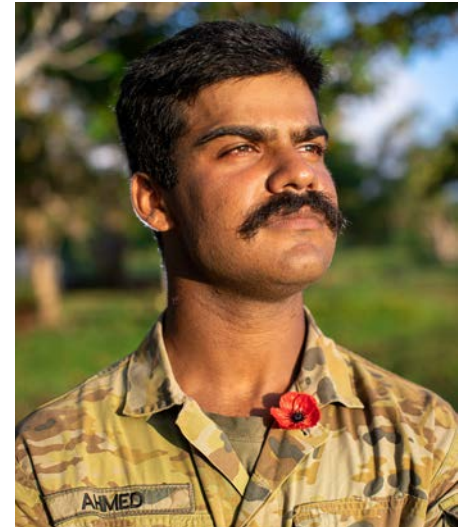
"Moving from Nusratabad, Pakistan, in 2000 with my parents for a better life, I was always interested in joining the Army," Private Ahmed said.

"Anzac Day means a lot to my family.

"I wasn't able to be with my parents last year due to the COVID-19 travel restrictions so I was really hoping to get home to attend a dawn service this year."

He said he felt proud of his fellow soldiers working on the Government of Vanuatu's radio network, as basic communication, especially in a time of a natural disaster, was critical.

"This is my first Anzac Day overseas and as much as I would love to spend the day with family and friends, I will be thinking of them and



give them a call," he said.

He said he had already experienced so much in his first posting to the 101st Signal Squadron in Brisbane, and hoped to continue learning and working on projects such as the Government of Vanuatu's national emergency radio network where his skills are helping people in need.

Veterans reflect on Battle of Kapyong

Growing up in the eastern suburbs of Adelaide, schoolmates Reginald 'Rocky' Anock and Keith Thomas had an unexpected reunion wearing Army greens.

The two veterans – now aged in their 90s – saw action at the Battle of Kapyong, fought in Korea from April 22 to 25, 1951. The battle is commemorated on April 24.

For then-Private Reginald Anock, seeing combat for the first time was shocking.

"That was my first – and a lot of the other boys – first time we ever actually went into proper action," Mr Anock said.

"It was rather frightening really.

"After a while it became normal – you get through it and your worries



Reginald 'Rocky' Anock at his home in Ridgehaven, South Australia. Mr Anock is a veteran of the Battle of Kapyong. *Defence image.*

BERTUCCI®
ULTIMATE FIELD WATCH™

BERTUCCI
DESIGN
DURABILITY
CERTIFIED
ENTHUSIAST TRUSTED™

GENTLEMAN'S EDC & ACCESSORIES
L5
LIFESTYLE
★ SHOP ★

**AUTHORIZED
DEALER**
lifestyleshop.com.au

Aussie We'll save you

Buying a home or refinancing?

At Aussie we understand that getting to physically see a broker, is sometimes not so easy. So we offer video appointments that can be done at your convenience. No matter where you are, provided you have internet access, we can discuss your matter - and see what we can do for you.

**To understand your home loan options,
book a free virtual appointment today.**

Tim McQueen
0419 274 858
tim.mcqueen@aussie.com.au

Aussie is a trade mark of AHL Investments Pty Ltd. Aussie is a subsidiary of the Commonwealth Bank of Australia ABN 48 123 123 124. © 2020 AHL Investments Pty Ltd ABN 27 105 265 861 Australian Credit Licence 246786.

HOFMANN®
Engineering

**SERVING
INDUSTRY
SINCE 1969**

DEFENCE

NAVY • ARMY • AIRFORCE

- Hofmann is proud to support Rheinmetall, Thales and Australian Industry in the manufacture and supply of components for the Boxer Combat Reconnaissance Vehicles, Bushmaster and Hawkei to the Australian Army. Future manufacturing opportunities are being investigated between Hofmann Engineering and the primes such as Rheinmetall and Hanwha for LAND 400 phase 3 as they explore Australian industry capabilities.

Hofmann Engineering is a leading manufacturer and globally recognised engineering solutions provider to the defence industry. Supplying a range of specialised components and sub-assemblies to the Australian Airforce, Navy and Army as well as major defence primes as part of their global supply chain. Hofmann Engineering are specialists in emergency breakdown situations and have been able to support the Australian defence force over the years by providing the solutions needed to getting an asset back online within the shortest possible timeframe. Hofmann Engineering has one of the largest 3D, 5 axis machining capacities in Australia.

- Hofmann manufactured aluminium communication racks on the Mercedes G Wagon

HOFMANN ENGINEERING PTY LTD 3 Alice Street, Bassendean (Perth) WA 6054 T +61 8 9279 5522 E mail@hofmannengineering.com

AUSTRALIA: PERTH | MELBOURNE | BENDIGO | NEWCASTLE
INTERNATIONAL: CHILE | PERU | INDIA | CHINA | NORTH AMERICA

www.hofmannengineering.com

seem to go away with your mates there, and you help each other.”

Mr Anock was deployed to Korea in 1950 with Alpha Company of the 3rd Battalion, Royal Australian Regiment (3RAR), and remembers his mates in the battalion.

“There was Brian Baker, Tex Mackie and Keith Thomas,” Mr Anock said.

“Keith and I went to school together. He was a good mate.”

Mr Thomas remembers Mr Anock from school and Army basic training in Victoria.

“He was a class ahead of me, both in school and training,” Mr Thomas said.

“I met up with him at Puckapunyal, but I didn’t see him again after that

until I joined the battalion in Japan.”

It wasn’t long after their chance meeting in Japan that 3RAR was spread across the Kapyong valley, far from home, fighting alongside other United Nations’ forces including New Zealanders, Canadians and the British.

In Korea, Mr Thomas was in 10 Platoon, D Company, and said he didn’t know Mr Anock was at Kapyong until after the battle.

While the two men didn’t see each other on the battlefield, they were glad to know each other’s company was there in support.

“Knowing your mates were there in the same situation, that really gave us the confidence to go ahead and do what had to be done,” Mr Anock said.

Over the years, surviving veterans of the historic battle have reunited, both in Australia and Korea, to remember their call to duty and their contribution to peace in the region.

“Those of us who were are at Kapyong, we get together when we can,” Mr Anock said.

“We don’t talk too much of the battle; there is plenty else that we have in common from our time in the Army.”

Mr Thomas remembers the comradeship between he and his fellow soldiers, forged in battle in the Kapyong valley.

“I think the greatest thing that you can have is that bond – that mateship. That’s the greatest bond you can have,” Mr Thomas said.

Fijians join Aussie soldiers for urban training

Soldiers from the Republic of Fiji Military Forces (RFMF) have joined Australian infantry soldiers from Army’s 7th Combat Brigade for military skills training on Exercise Coral Soldier.

Thirty-seven members of the RFMF are being hosted by Alpha Company (A Coy), the 8th/9th Battalion, Royal Australian Regiment (8/9RAR).

Officer Commanding A Coy 8/9RAR Major Joseph Carman said the training serial at the urban operations facility at Gallipoli Barracks on March 25 was designed to foster deeper cooperation between the two nations.

“The teams integrated really well,” Major Carman said. “We spent the week before integrating and developing those teams and the time spent in the urban operations training facility was the application of that team work.

“We had sections led by soldiers from Fiji and with the second-in-command (2IC) being Australian and vice versa, sections led by an A Coy soldier with the 2IC being a soldier from the RFMF.”

RFMF contingent commander Captain Allan Harry said his soldiers enjoyed the opportunity to get more experience in urban operations.

“My soldiers were happy to actually be walking through the facility, a training area similar to ones we could be deployed to in the future,” Captain Harry said.

“They really worked well together – the Australians and the Fijians have built up better relationships as a result.”

Major Carman said the exchange of knowledge worked both ways during the urban combat serials.

“We had an opportunity to learn about their (Fijians’) techniques, tactics and procedures and vice versa,” he said.

The military skills training featured other serials including combat shooting.

Major Carman said Exercise Coral Soldier would now increase in complexity.

“The next phase of Exercise Coral Soldier sees the conduct of platoon-level urban operations training which will conclude with the conduct of a company full mission profile out at



Corporal James Milne from the 8th/9th Battalion, Royal Australian Regiment, right, with Republic of Fiji Military Forces’ Private Seruwaia Kovakova, front, and Lance Corporal Apimeleki Nabati during urban training. *Defence image.*

Greenbank training area, structured around urban operations,” he said.

Captain Harry said he believed Exercise Coral Soldier would allow for much greater cooperation between the RFMF and the Australian Army in the future.

“The guys are happy to be part of Coral Soldier, because we believe it will assist us in the future if we do go out into operations together with the Australians,” he said. “It will allow for that interoperability between us.”

Air Force personnel trek for charity

Headquarters Air Combat Group personnel raised more than \$7700 for the charity Soldier On by walking or running 96km throughout March.

More than 20 personnel from RAAF Bases Amberley and Williamtown took part in the event, covering the length of the Kokoda Track in honour of one of the most important World War II battles for Australians.

Soldier On is a national charity delivering services to current and ex-service personnel and their families to support mental health and help prevent veteran suicide.

Commanding Officer of Headquarters Air Combat Group Wing Commander Melissa Neilson commended the participants for pushing themselves out of their comfort zones.

"I would like to pass on my sincere thanks to everyone who supported the team in the Soldier On March On challenge," Wing Commander Neilson said.

"All of the participants challenged themselves to walk or run a greater distance than they normally complete in a month, so it was great to see donations in recognition of their tremendous efforts.

"The team raised more than \$7700, which is an outstanding



Air Force personnel from Headquarters Air Combat Group who participated in the March On challenge with representatives from Soldier On.

achievement and surpassed my initial expectations."

The March On challenge concluded with a barbecue fundraiser at RAAF Base Williamtown on March 31, where personnel had one last opportunity to raise funds and raise awareness of Soldier On. National fundraising director of Soldier On Barry Kenyon attended the barbecue.

Wing Commander Neilson said she was blown away by the generosity displayed throughout the fundraiser.

"It was a pleasure to have Mr Kenyon in attendance as we drew the challenge to a close," Wing

Commander Neilson said.

"This year, the challenge has tripled Soldier On's expected fundraising, with more than \$1.8million raised so far.

"Of note, the majority of these funds have come from the civilian community, highlighting the respect that the community has for the ADF and ex-serving personnel."

Every dollar raised for Soldier On goes towards supporting lifesaving mental health services so returned ADF members and their families can march on and thrive in their communities.

Delivering support to cyclone recovery

Air Force has delivered five Victorian State Emergency Service vehicles to Western Australia, continuing the support of recovery efforts following Tropical Cyclone Seroja.

A C-17A Globemaster from No. 36 Squadron flew the vehicles from Melbourne to Geraldton on April 19.

Air Force began providing airlift support for the recovery efforts the day after the cyclone hit.

On April 11, the cyclone made landfall north of Geraldton, with wind gusts of up to 170km/h reported.

An Air Force C-130J Hercules transport aircraft deployed from

RAAF Base Richmond to RAAF Base Pearce on April 12, responding to a request from the WA Government and Emergency Management Australia.

The Hercules carried a Defence Medical Crisis Assessment Team, available to support the Western Australian Government as needed.

The Hercules immediately served as an 'air bridge' to reach cyclone-affected communities.

With support over the following days from No. 25 Squadron air movements' personnel, the Hercules delivered generators, recovery vehicles and equipment, and emergency services personnel.

Commander Air Mobility Group Air Commodore Carl Newman said airlift support enabled emergency services to respond to the recovery efforts more flexibly.

"It's 350 kilometres from RAAF Base Pearce to Geraldton, which is a four-hour drive or a 45-minute flight," Air Commodore Newman said.

"Having a Hercules available to assist recovery efforts means emergency services can conduct multiple flights from multiple airfields to the disaster area in a single day.

"The full extent of destruction following a cyclone is also not immediately apparent, and airlift

allows a responsive option to deliver personnel and equipment in the days that follow.”

Tropical Cyclone Seroja devastated homes and businesses, as well as damaging key infrastructure including powerlines and water pump stations for farmers.

Flight Lieutenant Kyle Hornberg, a pilot with No. 37 Squadron, led the Hercules crew in its support of local emergency services.

“We were very happy to be ‘on station’ in Western Australia within a day of the request being received, and able to support most contingencies for this task,” Flight Lieutenant Hornberg said.

“Our squadron is often at its best when it’s supporting humanitarian assistance and disaster relief

operations, or on Defence assistance to the civil community tasks.”

In recent years, No. 37 Squadron has been one of several RAAF units called out to support state and federal governments following bushfires, floods, cyclones, and the COVID-19 pandemic.

The repeated engagement with these government agencies – in this case, the WA Department of Fire and Emergency Services – is helping these squadrons deliver better support in a crisis.

“The ease with which we’ve integrated with these agencies has shown how far we’ve come in working together,” Flight Lieutenant Hornberg said. “We will continue to be more effective as we learn how to work together.”



Airman of year announced

Recognised for service excellence, Communication Electronic Technician Corporal Daniel Loane has been named the Air Force Airman of the Year for 2020.

Corporal Loane’s leadership, exemplary judgement and technical mastery led to the award nomination, supported by his significant service contribution to Operation COVID-19 Assist.

He joined the Air Force in 2011 and is based at RAAF Base Darwin as the No. 114 Mobile Control and Reporting Unit (114MCRU) maintenance manager within the tactical air defence system section.

Reflecting on his career, Corporal Loane said military service played a significant role in his personal development and he was honoured to receive the Airman of the Year Award.

“In today’s RAAF, becoming a confident speaker, leader, coach, mentor and manager are all part of standard progression and you receive all the resources you need to achieve success in your life,” Corporal Loane said.

“I thought that being ‘the nomination’ from 114MCRU was a great win. To be held in a high regard by my colleagues and chain of

command is a job well done kind of thing.

“I don’t know if there is any greater confidence that can be bestowed on someone in my position as a relatively new corporal. It makes me feel confident in my ability, trusted by the organisation to be a role model for those around me and encourages me to share what I have learned and experienced.”

Corporal Loane said his nomination referred to his response to a civilian vehicle accident near the remote Northern Territory checkpoint he worked at for the operation.

“As Joint Task Unit 629.7.2 detachment commander at the remote Tanami checkpoint in the Northern Territory I was certainly out of my technician comfort zone, however, to be a part of a whole-of-government operation was an amazing experience and one that I am proud to have been involved in,” he said.

“Ensuring the safety of civilian commuters on that day and assisting them on their safe return to their loved ones, was an honour and a privilege.”

Corporal Loane’s proactive approach to community engagement across the region during his deployment laid strong foundations



for a closer relationship with the ADF and the community into the future, demonstrating leadership beyond his worn rank.

Commanding Officer 114MCRU Wing Commander Sean Gell said Corporal Loane’s technical mastery and collaborative approach ensured the generation of a positive learning culture toward the delivery of

OWENS

National Wharf Cartage

Our national coverage ensures continuity of service and reduces time and associated administration costs when working with multiple providers.



Depot Services

On-site fumigation, quarantine inspection, container staging options, packaging, unpacking & re-delivery services eliminate 3rd party involvement, reducing your lead times and associated costs.



Container Tracing & Visibility

Our online portal (Mainchain) gives you and your customers real time information across all legs of your containers journey.



owenstransport.com.au | (02) 9101 8500



Do you need help with a federal issue?

- ✓ Veterans Affairs
- ✓ Aged & Disability pension
- ✓ Congratulatory/Anniversary messages
- ✓ Medicare & Centrelink
- ✓ Taxation

Linda Burney MP

Federal Member for Barton
203/13A Montgomery Street
Kogarah NSW 2217

Phone: (02) 9587 1555
Email: linda.burney.mp@aph.gov.au

 facebook.com/lindaburneymp
 [@lindaburneymp](https://twitter.com/lindaburneymp)



**Product Solutions for
Intelligent Traffic Systems**
AGD make easy to intergrate globally compatible
ITS product solutions.

Telephone: (02) 9653 9934
sales@agd-systems.com.au | www.agd-systems.com.au
Unit 17/15 Valediction Rd, Kings Park NSW 2148

capability for mission success.

“Corporal Loane set an exceptional standard throughout 2020 and, with a significantly reduced team, maintained the section output while fostering an exceptional rapport with the operations team,” Wing Commander Gell said.

“The net result of this has been an open and frank dialogue that provides the operators with an enhanced understanding of system faults and remediation while consolidating the trust between the two sections – genuinely creating a single team, focused on the effective delivery of Air Force capability.

“Additionally, his development and implementation of the Mobile Control and Reporting Unit deployment guide has ensured that his efforts to drive

technical mastery will endure beyond his tenure within the unit.”

Reflecting Defence Values through his service contributions and community efforts, Corporal Loane also regularly volunteers to represent Air Force within the wider community. This, together with all of his service achievements throughout 2020 were collectively recognised as part of his nomination.

“I join with 114MCRU in congratulating Corporal Loane as a worthy recipient of the award. His initiative and RAAF bearing are an example to his peers and of great benefit to the Air Force. 114MCRU is proud of his achievements,” Wing Commander Gell said.

Commander Surveillance and Response Group Air Commodore

Barbara Courtney also extended her congratulations to Corporal Loane.

“As Commander of our incredible Surveillance and Response Group team, it gives me no greater pleasure than to witness the acknowledgement of our bright young talent and the incredible work they do,” Air Commodore Courtney said.

“Corporal Loane’s commitment to the continual improvement of 114MCRU capability, and his superior performance as a corporal has been exceptional, and he can be justly proud of his efforts.”

The Air Vice Marshal B.A. Eaton 'Airman of the Year' Award is awarded to an airman of the rank of corporal or below to recognise the calibre of the individual and their significant contribution to the Service and community.

Snapshot in time and history



Air Force personnel representing all specialisations and musterings form the number 100 with all in-service RAAF aircraft and ground assets at RAAF Base Amberley, Queensland. Photo: Corporal Nicci Freeman

RAAF centenary focus of Anzac Day

The centenary of the Royal Australian Air Force has been the focal point of Anzac Day ceremonies, with the telling of stories of bravery by Air Force men and women.

At the national Anzac Day Ceremony at the Australian War Memorial in Canberra, Chief of Air Force Air Marshal Mel Hupfield told the crowd that while many Anzac Day stories speak of the trenches of Europe, he wanted to mark the "equally vicious fighting in the skies above".

Delivering the commemorative address, Air Marshal Hupfield told the story of Squadron Leader Peter Jensen, who joined the RAAF in 1921, just days after it was founded.

At 19, Mr Jensen trained as a wireless Air Gunner and flew with the 461 Squadron over the Atlantic Ocean hunting the German U-boats, sinking many and helping eliminate the threat to Allied shipping.

On one occasion, he spent 17 hours in a life raft after his flying boat was shot to pieces by enemy aircraft, Air Marshal Hupfield said.

"Even so, on each occasion when the time came, he got up, donned his flap jacket, climbed aboard and did what had to be done.



Torres Strait Island Flag bearer, Sergeant Kelly Weaver from Headquarters Air Command.



The Air Force contingent, during the 2021 Anzac Day March in Sydney, New South Wales. *Defence images.*

"I don't tell his story because he is extraordinary, I tell his story because he felt himself to be ordinary - Peter was just one of the many who gave their country and their community a lifetime of service," Air Marshal Hupfield said.

Mr Jensen died on April 8 2021, just a few days before his 100th birthday.

The air force band played at the service while the Air Force Chief received the banner parade.

At the national dawn service held earlier on Sunday, prayers were said by Principal Air Chaplain Mark Willis, while the didgeridoo was played by Flight Lieutenant Tjapukai Shaw

In Brisbane, at the dawn service held at Anzac Square, Queensland Governor Paul de Jersey also paid homage to the men and women of the RAAF.

"In its centenary year, while we pause a little longer in acknowledgement of the RAAF, our gratitude and unalloyed respect belong to all who have served, all who are serving.

"Over the past 100 years, the planes and technology have changed beyond recognition. What hasn't altered, is Air Force personnel's commitment to service and their

country," Mr De Jersey told the crowd on Sunday morning.

He noted that Queensland played an integral part in the air defence of Australia and the Pacific during World War II.

Horn Island, off the northern tip of the state, was attacked by Japanese aircraft at least eight times, while Townsville and Mossman also came under attack, he said.

In 1942, the RAAF 75 Squadron was formed in Townsville, and 76 Squadron was formed in Brisbane - and both were vital in the Battle of Milne Bay, the first land defeat of Japanese forces in the Second World War.

Mr de Jersey also told the story of Australia's first known Aboriginal pilot, Len Waters, who flew more than 90 missions from the island of Noemfoor in the later stages of World War II.

In one instance, Mr Waters was airborne for more than two hours with a Japanese 37-millimetre cannon shell wedged undetonated in his cockpit.

Meanwhile at a service in Sydney, opposition leader Anthony Albanese also paid tribute to the RAAF.

"The RAAF's history is truly a proud one, we give thanks to all who have served, and those who serve still," he said.

New uniform for Air Force veteran

A new uniform has been presented to 103-year-old Air Force veteran Iris Terry, which she will proudly wear on her first Anzac Day march in Sydney.

Presented on April 20 by current-serving aviators from RAAF Base Glenbrook, the blue service dress uniform consists of pants, a shirt, a cardigan, and a women's cap.

The uniform was tailored by Ventia staff at RAAF Base Glenbrook's clothing store.

Fittingly, Iris served as a tailor in the Women's Auxiliary Australian Air Force (WAAAF) during the World War II.

Fay Poulter is her close friend and carer, and said Iris would proudly wear the uniform on Anzac Day when she leads a contingent of current-serving and veteran Air Force women.

"This year will be the first year she'll march," Ms Poulter said.

"Iris never used to march on Anzac Day, because nobody asked her, and she didn't know to apply.

"She used to go and watch it, but she just didn't know that she was allowed to march with everyone as well."

Born Iris Pfitzner in 1917, she grew up in Griffith, NSW, and was already a talented seamstress before she joined the WAAAF in April 1944.

In an interview with Legacy Australia last year, Mrs Terry said she made her choice because, "I loved the Air Force, and their uniforms were better".

Mrs Terry joined a team of tailors at RAAF Base Richmond who sewed the uniforms for personnel on their way to the war.

In December 1945, she discharged from the WAAAF at the rank of leading aircraftwoman.

She met Army veteran Emerson Terry and married him a year later.

Mrs Terry continued working as a tailor in Sydney, sewing gowns for judges and barristers, and suits for clients who included Prime Minister Paul Keating.

Despite COVID-19 restrictions,



Leading Aircraftwoman Carley Dunn, left, Squadron Leader Del Gaudry, and Corporal Maddison Henry stand with Mrs Iris Terry during a formal presentation of a uniform at the Fairfield RSL. *Defence images.*

Mrs Terry has still maintained social connections that led to the request for an Air Force uniform, according to Squadron Leader Del Gaudry.

"The request came from June and Ken Young, who are Iris' Legatees with Legacy Australia," Squadron Leader Gaudry said.

"They wrote to Air Commodore Ian Scott, a reservist at RAAF Base Glenbrook, whom they knew through Rotary Australia.

"Air Commodore Scott then approached me asking about whether it was possible to obtain a uniform for Iris, because she really wanted to wear it for the march."

Options were considered to present her with an old uniform before a request was made to Warrant Officer of the Air Force Fee Grasby for Mrs Terry to be issued with a new uniform.

"It was then approved through Air Force Headquarters, and I took that approval to the clothing store on RAAF Base Glenbrook," Squadron Leader Gaudry said.

"The Ventia staff at our clothing store were wonderful in tailoring a

service dress uniform for Iris to wear."

"It was a great honour for the Ventia team to tailor a uniform for a veteran who was a tailor herself, and they felt very privileged to deliver this uniform for Iris before Anzac Day."



Air Force veteran Mrs Iris Terry displays her medals during a formal presentation of her uniform at the Fairfield RSL.



P: 02 6260 9400 | E: enrolments@stcc.act.edu.au | www.stcc.act.edu.au

At St Clare's College, we are always looking forward with the intent to prepare students for twenty-first century citizenship and employment. Our strategic intent – Seek Wisdom frames our commitment to becoming a Visible Learning School. Facilitating the use of researched based teaching practices in all classrooms helps to ensure that every student is engaged, challenged and experiences at least one year's growth as a learner each year.

St Clare's College provides outstanding pastoral support for students through their Pastoral Care (PC) teachers. The College is comprised of outstanding educators from an array of learning areas who are committed to supporting students.

Defence Service families have the added support of our Defence School Mentor who provides programs and services to support the individual needs of Defence students. These include:

- Welcoming new families and students to our College and supporting their integration into the College community.
- Providing support to students during parental absences.
- Organising regular social events for students.
- Excursions for students that encourage leadership, initiative and teamwork. These excursions are often combined with other ACT schools which run a Defence School Mentor program this allows students to socialise across the broader ACT Defence community.



- Coordinating the whole school ANZAC Day Ceremony and Remembrance Day activities. Also providing opportunities for students to represent the College at local external ceremonies.
- Providing the Pastoral Care team and teachers support and information to assist defence students.

Enrol today to secure your daughter's future in a secondary College that offers excellent academic results; a partnership between students, parents and teachers; support in navigating the teenage years. Enrolments are now open for 2022 via our online application form on our website www.stcc.act.edu.au

PROVIDING A SIMPLER POSTING EXPERIENCE

PostingConnect is an on-line platform designed by Defence to streamline the posting process for ADF members and their families.

It is available for eligible ADF members and families to assist them with their domestic postings. It connects to a range of other posting services, including Toll and Defence Housing Australia (DHA), and allows families to manage all their posting requirements from a central location.

After going through several rounds of testing and feedback, the PostingConnect platform has been improved and new features added to better serve members and their families. Following a pilot of the platform with a small group of posting members, it's now being progressively rolled out to Defence members undertaking postings.

Serving member Alex Vella was involved in the initial pilot and feedback sessions.

"Since I have only been posted a couple of times, it's all a bit daunting trying to figure out what to do and who to contact," said Alex.

"PostingConnect is a user-friendly system that will make the posting process more efficient—it's definitely made it easier for me. It provides a checklist and allows me to tick tasks off and make sure that I'm not missing anything along the way."

Having seen the platform evolve through its



multiple iterations, Alex acknowledged the numerous improvements that had been made.

"The new tasks and information is great, especially for families and partners who may not understand the process or language used within Defence."

The refinement of the platform and the introduction of new features were also noticed by other participants who provided valuable feedback.

"I can see the changes made based on all the

feedback I originally gave, which is great," said Alex.

PostingConnect is being progressively released to posting members. Eligible members will receive an email on the Defence intranet inviting them to use the online platform for their posting, shortly after their posting order is issued.

ext.defence.gov.au/postingconnect

PARTNER EMPLOYMENT SUPPORT

The Partner Employment Assistance Program (PEAP) provides funding towards initiatives to assist eligible ADF partners with the difficulties of finding employment when the member is relocated on posting or medically transitioning.

The eligibility criteria for PEAP has recently been changed to support families during the COVID-19 health crisis. Partners can now apply for up to \$1,500 for professional employment services at any time during the posting cycle.

Job-Search Preparation virtual workshop:

Delivered in a variety of formats. Partners can undertake a Job Search Preparation (JSP) workshop at any time throughout a posting. There is no cost to the partner for this service, and it will not impact upon the \$1,500 professional employment services support cap.

The JSP workshop will help you manage your career, sell your skills and experience, build or refine your resume and provide an opportunity for you to gain further employment assistance through other initiatives such as Job Connections.

defence.gov.au/DCO/Family/Partners/PEAP.asp



NEW NAME FOR DCO

Defence Community Organisation is to change their name to Defence Member and Family Support (DMFS) from 1 July 2021.

DCO was formed in 1996 when the three Services' family support organisations were brought together. Since then, DCO has grown to have a nation-wide presence with on-the-ground services delivered from local area offices and ADF transition centres.

It's important that Defence members and their families see DCO services as something accessible to them and part of their community. Recently there's been some feedback that families may think DCO is outside Defence and therefore not applicable to them.

To overcome that misconception, DCO undertook staff and stakeholder consultation, which also included Defence Families of Australia, the Department of Veterans' Affairs and a number of ex-service organisations. This consultation helped to come up with a new name that people could look at or hear and immediately know what and who they are.

DCO said the new name was selected because of its strong alignment to the vision and clear description of 'what we do and who we do it for'. There will be no changes to the services currently provided to Defence families.

The date of 1 July 2021 has been chosen to officially change the name because it coincides with DCO's 25th



anniversary. 'This will be a chance to look back on where we've come from, where we are and where we want and need to go'.

Leading up to the official change, you'll start to see DMFS increasingly used so by the time 1 July rolls around there won't be any surprises.

<https://www.defence.gov.au/DCO>

ALL BORROWERS ARE EQUAL, BUT SOME ARE MORE EQUAL THAN OTHERS

You may recognise this slightly edited version of a famous proclamation by the pigs who control the government in George Orwell's classic novel *Animal Farm*.

adopted by banks and other financial institutions of privately flagging customers, or categories of customers, who may qualify for special privileges or rates.

This can be significant when it comes to interest rates on loans, savings and term deposits. Many people don't realise that banks are nearly always negotiable on rates, especially for ADF members and their families as they are usually viewed as having financial stability.

The desirability of ADF families is even more so during difficult times when financial service providers will be more cautious, favouring customers who are less likely to default.

ADF families who are thinking about borrowing or refinancing should use this to their advantage. Don't be afraid to shop around or consider taking your business elsewhere if the deals on offer aren't competitive. While it's unlikely to be offered voluntarily, make sure you ask for the best deal.

Similarly, with car loans, leases and any other financial products or transactions, do not underestimate your family's consumer power, especially in difficult economic times. Do

not be afraid to ask a lender or financial service provider to put their deal in writing to demonstrate its worth against other options. And when you're assessing offers, be aware of fees, penalty interest rates and the facility to pay down loans early without cost.

The key message here is that ADF families are customers and potential prospects with a great deal of market power, so use it to your advantage. Take your time, do your homework and ask questions. You may get a pleasant surprise which will save you thousands of dollars.

Remember though, when it comes to debt, don't get in too deep. Do a stress test on your family's personal circumstances with a number of 'what if' questions, such as 'what if interest rates rise?', 'what if we lost an income source?', 'what if we need to sell?'.

If you have questions about your finances, including any personal financial difficulties you may be experiencing, don't hesitate to approach us through 'Contact Us' on our website. We are more than happy to help on a strictly confidential basis.

ADF FINANCIAL SERVICES CONSUMER CENTRE

adfconsumer.gov.au

Home insurance tailored to serving and ex-serving Australian Defence Force members



More than 300,000 additional serving and ex-serving Australian Defence Force (ADF) members, including Reservists and Peacekeepers, regardless of their length of service are now able to access all-inclusive home building insurance through Defence Service Homes (DSH) Insurance.

DSH Insurance's eligibility expansion has broadened the access for those serving and ex-serving ADF members residing in regional Australia and particularly, those currently posted or living in areas that have high risk of cyclones, bushfires and other natural catastrophes.

For over 100 years, DSH Insurance has provided comprehensive home insurance to eligible serving and ex-serving ADF members with attractive

premiums that include a range of benefits such as no excess for insured events*, accidental damage, and fusion of motor cover at no additional charge.

No excess on claims is a unique feature that puts our policyholders front of mind as this supports them getting their home back to a pre-damage condition without having to worry about paying an excess - helping ease the pressure on many household budgets.

DSH Insurance is a highly valued benefit amongst the ADF community with nine out of ten policyholders renewing their insurance each year. No claim or query is hard to handle, our Australian based service team operates nationally, providing uncomplicated insurance and

Key features

- flood and accidental damage
- storm damage
- fusion of electric motors that are part of your home, regardless of age of the motor
- a tailored claims process supported by a broad network of loss adjusters and contractors
- temporary accommodation should your home become unfit to live in
- no excess (other than for earthquake damage and some accidental damage), and
- flexible payment options at no extra cost.



claim services that help ensure our policyholders receive the settlement they are entitled to.

DSH Insurance is Government owned and administered by the Department of Veterans' Affairs (DVA) with revenue generated from premiums invested back into DSH Insurance – providing high quality insurance products and services at a competitive price.

Find out more by visiting dsh.gov.au/insurance or speak to our friendly customer service on 1300 552 662.



AAFCONS (Army & Air Force Canteen Service) as a Commonwealth Entity and a member of the Defence family continues to invest in facilities and technologies to improve our products and services on base and on exercise.

Our organisation exists solely to provide Defence members with access to quality food and beverages and retail items and to support base welfare. AAFCONS gives back to Defence through welfare disbursements, price cuts and facility improvements.

Last financial year AAFCONS disbursed \$534,985 to Defence welfare.

If you would like more information about our organisation please visit our website www.AAFCONS.gov.au and make contact-we'd love to hear from you!

EJECTING – TRANSITIONING FROM THE ADF

Christian ‘Boo’ Boucousis explains how he successfully transitioned from the Royal Australian Air Force after his career as a pilot was cut short by adversity

My career in the ADF flying F/A-18 Hornets, and on exchange flying Tornados in the UK, was to this day, one of the most rewarding periods of my life. It was also a career cut short after the diagnosis of an autoimmune disease called Ankylosing Spondylitis, a big name for a degenerative condition that robs you of mobility and sets you up for a life of pain management and medication. So began the start of my transition from the RAAF into business and the beginning of a comfortable relationship with transition and change — a relationship I unwittingly developed as a fighter pilot.

Now you’ll need to bear with me for a little bit, I’m going to talk about myself, something fighter pilots tend not to do. However, as this is a story about life transitions, especially transitioning out of the ADF, it’s a very personal and emotional one, so I need to set the scene for you.

I was one of those pilots who always dreamed about becoming a fighter pilot. I don’t recall any other career aspirations as a child. I think I read every book ever written about fighter pilots in WWI, WWII, Korea, and Vietnam before I left high school. My sole focus and purpose was to make it into the cockpit of a single seat fighter, specifically the RAAF’s F/A-18 Hornet.

I was lucky to have this focus! I wasn’t a particularly academic kid, preferring to focus on sport and to be honest, dream about a future of life in the cockpit. The time I should have spent in academics, was time spent washing aircraft at my local airport for pocket money, studying aviation at TAFE, and learning to fly at the Aero Club — I lived and breathed aviation. Without that aviation focus, I’m not sure what I would have done with my life in those formative years. I was also applying to join as a pilot with the

“I think I read every book ever written about fighter pilots in WWI, WWII, Korea, and Vietnam before I left high school. My sole focus and purpose was to make it into the cockpit of a single seat fighter, specifically the RAAF’s F/A-18 Hornet”

RAAF, Army and Navy whilst studying at school, initially to join the academy, where the ADF demonstrated great insight and knocked me back, informing me; “You don’t seem to be motivated about a degree, it seems you just want to fly”. Yep, spot on! So, I joined as a direct entry pilot.

A few years ago, I accessed my personnel file to renew my security clearances and I encourage every ex-ADF member to do so! It was a fascinating journey down memory lane, where every action I took or decision I made was forensically examined and critically assessed. Reading through this 20-year-old documentation, I was surprised by what those assessing me had to say.

I was only 19 when I joined, however one of the traits mentioned during my officer selection panel was the “degree of maturity” I exhibited. I hardly felt mature at the time! This conclusion was reached based on the commitment I had shown to becoming a pilot, to quote, “Boucousis exhibits the determination and commitment to become a pilot by holding two jobs working seven days a week to fund his flying”.

Did I mention I dropped out of university after six weeks? I couldn’t figure out how a degree in mathematics was going to help me and I was only doing the course because I watched

a video where an F-111 pilot had a degree in mathematics. There were two motivators for this decision, the first, I wasn’t very good at maths, the second, the hours I spent in the lecture theatre were hours not spent in the cockpit or earning money to fly.

Needless to say, my pre-RAAF life wasn’t the most glamorous. Mowing lawns and landscaping during the day, and working in a pub as a general hand at night and on the weekends. In between I found the time to squeeze in a few hours of flying, ultimately self-funding my private pilot licence around the time I was selected for pilot training.

The pilot training machine for the RAAF is a work of art. Reflecting on a 16-year career in business, there is nothing as sophisticated, focused, and reliable in turning out top-notch aviators — I’d go as far to say the best in the world. I believe Australia is uniquely placed to learn from big peers in the US and UK, yet be small enough that everyone knows everyone.

When you’re “in”, it feels like it’s a little over the top, the organisation may be a little disorganised and for some reason, you don’t get every posting you want! However, compared to how other organisations run, it’s a well-oiled machine!

I don’t remember much of the specifics between joining up and starting work in the Squadron as a newly minted D-Cat fighter pilot. I do remember how it felt, the people, the professionalism, and the environment. It was second to none, efficient, and aligned in purpose and execution.

Now I may look back with rose-tinted glasses, the same way an-expat always talks up home, thanks to my early discharge. I don’t believe that though. Today, I am an entrepreneur, I’ve been able to indulge my dreams and ambitions, to lie on the greener

grass on the other side. You know what? It's not that green! Maybe for a day or two, however, it's really just the same.

Maybe I should step back quickly, to the year I was discharged and transitioned into the "real world" as a 30-year-old man with zero skills beyond flying jets at speed. This was a period of soul searching and exploration. I spent a little over a year ground bound filling a posting at the Australian Defence Force Warfare Training Centre at Williamstown.

A magnificent posting in hindsight. I had no concept of how complex it was running a country! Here I learned about the many Defence and non-Defence players involved in defending our country and how it integrated into the Australian government's agenda.

It set me up with skills I still apply to this day. It was during this time we'd just finished operations in Afghanistan and Iraq. I'd come to learn a little more about NGOs, the UN and the private sector's role in fulfilling the agenda of government and non-government agencies. So, with my discharge processes, I set up my first business with a very good friend I had made in the UK and we both jumped on a flight to Kabul and established a business, helping anyone who needed help!

The short version of a very long story goes like this. The business succeeded beyond our wildest imaginings, we soon developed a reputation for integrity, getting the job done and always surpassing expectations. Attributes and traits instilled in me as a member of the ADF, just applied slightly differently. From Afghanistan it was over to Perth to build the world's tallest prefabricated hotel, setting records for construction speed through the application of innovative construction techniques. I also transitioned into publishing, converting a paper magazine into an online global publication.

Today, I have the amazing opportunity to tap into my past, helping companies grow using the same techniques and skills I learned as a fighter pilot. Possibly the most rewarding transition I've made, where I see the value of a career in Defence,



applying my lessons learned there into the private sector. The success didn't come easily though and there are certainly elements of the story where success was elusive. The successes were always the sum of the same parts. I've learned over time, some would say "the hard way", that when you transition into anything, from anywhere, it's harder and takes longer than you'd think. We always see the end result first.

Whether it be a transition into a corporate role, a small business owner or directly across into the civilian workforce. What we aren't so good at is preparing for the bit in between — the three years of sweat and tears

expended as you equip yourself with the skills and knowledge to contribute within the field you are transitioning into.

The key lesson here is, it's not the technical skills you learn in Defence, it's the way of working, the way of thinking and most importantly the calibre of person you are. Don't take for granted the system that recruited you, they know what they are doing! You were recruited because you are an outstanding individual with the traits required to be successful.

This is where the recurring themes of successful people start to become obvious. Success doesn't care if you came from a military background,

started on the streets or from a privileged background. I've seen success and failure in places you wouldn't expect to find them.

What are these themes?

- 1. Focus** – You must find something you can commit to mind, body and soul. Don't transition for money. Spend time researching what it is you want to transition into.
- 2. Commitment and consistency** – Show up everyday and jump through all the hoops. Just like the ADF, a lot of what you do won't make sense at the time. Fortunately, you've been trained to just do it!
- 3. Never give up** – When you transition into anything, you start again, right from the bottom. The good thing is though, with the skills you're naturally equipped with, you have the ability to accelerate your journey to the top.



As a fighter pilot, I was always taught to deliver on three objectives with every mission, no more. To me these three objectives are the top three recurring themes I see in successful people. Being successful isn't about winning big all the time. It's about committing to the small wins each day,

that ultimately lead you to the life you want to live.

Christian 'Boo' Boucousis, lead speaker and coach, Afterburner Australia

<https://afterburner.com.au/>

Pioneering RSL employment program expands again

An RSL initiative that takes a holistic approach to veteran employment rolls out across Australia in March, following outstanding success in Queensland, Victoria and South Australia.

The industry-leading RSL Employment Program not only helps veterans but offers an array of supporting services such as financial counselling, employment for partners and mental health support to empower veterans to remain in work.

RSL Queensland General Manager Veteran Services Rob Skoda said the program, based on a ground-breaking program piloted in Townsville, Queensland in 2017, has just launched in New South Wales and the Northern Territory, and Tasmania.

"Every year, around 5,500 Defence personnel leave the military for various reasons and unfortunately, a proportion of veterans struggle to find and maintain work," he said.

"The RSL Employment Program is designed to provide holistic and comprehensive support that address the unique challenges faced when transitioning from a Defence career into a civilian workforce.

"The program's approach has seen incredible success in Queensland, Victoria and South Australia, with 400 veterans so far securing jobs, plus a 150 per cent growth in enquiries and a remarkable 15 per cent growth in job placement in 2020, during a COVID-disrupted year," Mr Skoda continued.

The roll out of the RSL Employment Program across the country has been made possible through a \$6 million grant from the Australian Government, through the Enhanced Employment Support for Veterans grants program.

RSL National President Greg Melick said former Defence personnel have a wealth of skills and experience that benefit civilian businesses, from

technical and trade qualifications to corporate leadership.

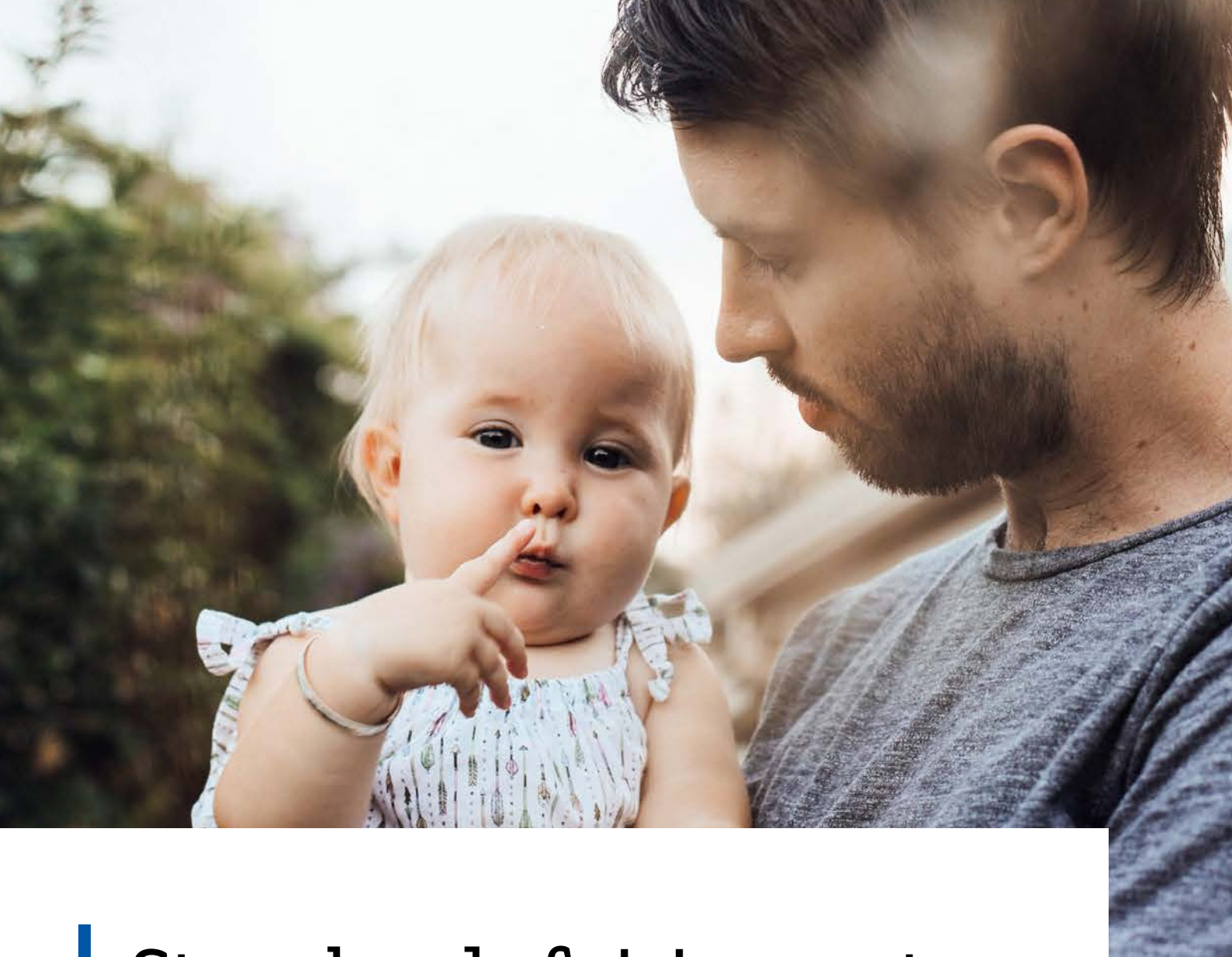
"Veteran welfare is at the heart of everything RSL does and we welcome this comprehensive and holistic approach to addressing a major issue for our Defence family," Mr Melick said.

"When employers hire a veteran, they are hiring a committed employee who embodies team spirit, has a strong work ethic and is both an effective leader and team member."

Employers already on board with the program include Australia Post, Ergon Energy/Energex, Suncorp, Wodonga TAFE, Boeing, BAE Systems and Brisbane Motorways Services.

Veterans, their partners and employers can learn more about the RSL Employment Program

www.rslqld.org/Find-Help/Employment



Stay ahead of rising costs

No one wants to make huge sacrifices in retirement. Invest in an APS term investment and earn 4.0% interest per annum over 24 months.

apsbenefitsgroup.com.au



Since 1905, the APS Benefits Group has supported the financial wellbeing of over 29,000 members and clients. Give us a call on 1300 131 809

Smarter solutions for
a stronger Australia.



Saab Australia is delivering sovereign capability and combat-proven solutions, providing a tactical edge to our nation's defence on the modern battlefield.

[Learn more at saab.com](https://www.saab.com)

