

ISSUE 62



CONTACT

AIR LAND & SEA

JUNE 2019

THE AUSTRALIAN MILITARY MAGAZINE



EXERCISE

JACKAL RUN

MILITARY SHOP WAREHOUSE CLEARANCE SALE

4th to 9th
of June
2019

Grab your share of the savings with **20-80% off** our range of great products, including magnificent **CEREMONIAL SWORDS** and precious metal **MILITARY INSIGNIA RINGS!**



Fabulous offers on our highly popular commemorative and field gear ranges as well!



MILITARY SHOP

ON LINE: www.militaryshop.com.au PHONE: 02 6123 2950
IN STORE: 65 Kembla Street Fyshwick ACT

ISSUE 62 – JUNE 2019

Exclusive AU/NZ distributors of:

- Rochester Precision Optics
- Rock Face FR Undergarments
- RolaTube Masts & Antenna
- Crye Precision clothing
- Pure Hydration Filters
- Force Protector Gear
- Darn Tough socks
- Gentex Helmets
- TEA Headsets

AND MORE!



Rochester Precision Optics CNOD

- High-definition, fully digital Day/Night Optic
- Capable of detecting targets and lasers
- Operates in the 500nm to 1080nm spectrum
- Uses CR123 batteries; weighs only 525g
- 6x internal digital zoom; can capture and transmit still photos or video in HD
- Manufactured to Military 810G specs



TEA Hi-Threat (HTH) - Tier 1

- Combat Noise Suppression hearing protection
- Adjustable & amplifiable for 360° battlefield awareness
- Ballistic & submersible Noise Cancelling boom mic
- Wear independently, or integrate with helmet via rails



TEA U94 PTT



FibroTex Nightwalker

- Static & dynamic thermal concealment
- Complete thermal range: 2500-12000nm (MWIR & LWIR)
- Ultra-light: 550g including 15x15x20cm compression bag
- Operational in all environments
- Ergonomic design, allowing full maneuverability
- Breathable for high-intensity activities
- Various visual camouflage solutions

www.spearpointtechnology.com.au

Email: sales@spearpoint.net.au // Phone: +61 (0)2 6298 1122 // 90 Bayldon Rd, Queanbeyan NSW



56



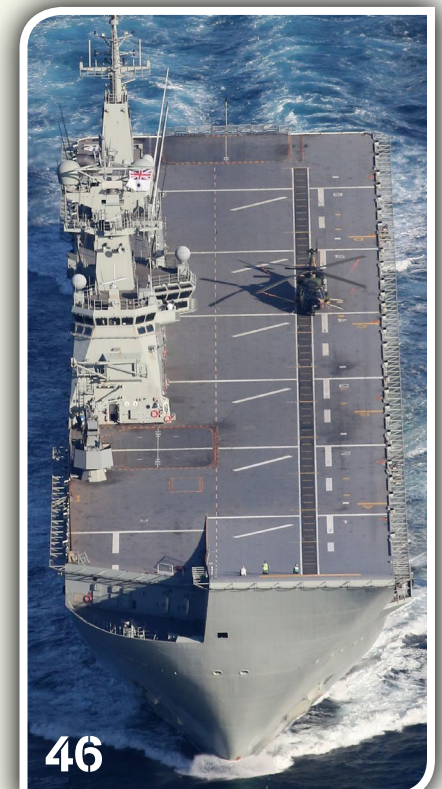
30



26



62



46

- 10 The Big Picture
D-Day Landings
- 12 Heads Up
- 18 Does Size Matter?
Why Army's new Boxer is huge
- 26 Game of Thrones
Two world's collide
- 30 Welcome to the Jungle
MRF-D and 5RAR in Tully
- 36 Wings Over Illawarra
Annual Airshow
- 44 RAAF's new VIP jet
- 46 Indo-Pacific Endeavour
Australia steps up
- 56 Ex Chong Ju
- 60 Ex Jacka Run
- 62 Ex Diamond Storm
Air Warfare Instructors
- 66 ????
?????
- 70 DFSW *Club*
- 72 Just Soldiers
Corporal Biller Zorning
- 78 Q Store
- 82 Cadet Corner

Find, like, share at [f](#) [t](#) [p](#) [y](#) [i](#) [w](#) [e](#) and [r](#)

MILITARY SHOP WAREHOUSE CLEARANCE SALE

4th to 9th of June 2019

ALL BEARS, GREAT AND SMALL ...

Buy any Limited Edition Great War Bear and we'll give you a **FREE WWI Little Aussie Bear** of your choice! Choose from the WWI Flyer Bear, WWI Nurse Bear, WWI Digger Bear or the WWI Sailor Bear. Use the promocode **FREEBEAR** at checkout.



www.militaryshop.com.au/Bears



MILITARY SHOP

ON LINE: www.militaryshop.com.au PHONE: 02 6123 2950
IN STORE: 65 Kembla Street Fyshwick ACT

EDITORIAL

Issue 62 – June 2019

CONTACT

AIR, LAND & SEA



EXERCISE JACKA RUN

Photo by Lieutenant Reece Calvert

Story page 60

Editor	Brian Hartigan editor@militarycontact.com ph: 0408 496 664
Art/Design	Brian Hartigan
Advertising	Brian Hartigan advertising@militarycontact.com
Business Manager	Rosie Hartigan accounts@militarycontact.com ph: (02) 4293 1010

CONTACT Air Land & Sea magazine is Published by Contact Publishing Pty Ltd, PO Box 3091, Minnamurra, NSW 2533, AUST

www.militarycontact.com (all info)
www.aussiecombat.com (free subs)
www.issuu.com/contactpublishing (archives)
www.facebook.com/CONTACTmagazine
www.youtube.com/CONTACTpublishing
www.pinterest.com/CONTACTmagazine
www.twitter.com/aussiecontact
www.patreon.com/contactmagazine

CONTACT Air Land & Sea is published on 1 March, June, September and December. It is only published electronically on the Internet and is available by FREE subscription via www.aussiecombat.com

All editorial, advertising and general enquiries should be addressed to the editor.

All material appearing in this magazine is protected by copyright and may not be reproduced in whole or in part without permission from the copyright owner (which may not be Contact Publishing). The views expressed in this magazine do not necessarily reflect the views of the publisher or the editor. The publisher does not accept responsibility for any claim made by any author or advertiser – readers are encouraged to seek professional advice where appropriate.

I've had fun putting this issue of CONTACT magazine together. Deadline pressures always focus the mind. But with this issue, I decided to add extra pressure by knuckling down to make a YouTube video series about the process!

I might be mad. I might be a glutton for punishment. But this is something I've been meaning to do for quite a while.

I'm a big YouTube fan. I love watching 'Youtubers' and have a list of a dozen or more I absolutely have to watch every time they drop a new vid. I even decided to become a Youtuber myself.

I've been making [Editor's Personal Vlogs](#) – about 40 over the past 18 months, with a smorgasboard of travel, grandkids and DIY projects – plus [Shots From The Editor's Desk](#) – looking at drones and sharks, cameras and gadgets – and, of course, my [DJI Mavic Pro drone](#) (which is currently winging it's way back to me from the repair shop) – all of which are (or maybe not even) very loosely relevant to the CONTACT brand.

But, with this new series, I think I may have found a new key theme that's completely relevant to CONTACT.

"[How CONTACT Is Made](#)" is already up to six (maybe more by the time you read this) videos in the series. These initial efforts are more of an overview of various aspects of the layout process – a whole story and spread in a single video (though for your sanity, I've used the fast-forward button a lot. You're welcome.)

Once I give this issue of CONTACT a good 'how it was made' overview, I think I might then get down in the weeds on specific things like how and why I edit the way I do, how I edit a photo, different styles of writing (for magazines, web sites, letters to the editor etc).

I fully appreciate that very few of you will be interested in or even curious about my videos, and that's OK. I'm enjoying the process.

But also, did you know, YouTube is actually the second-biggest search engine in the world (after Google), so maybe non-CONTACT fans will find my videos, like them and be attracted to CONTACT because of them. And that's also good – for me and for CONTACT.

If you aren't already a subscriber to the [CONTACT YouTube Channel](#), could I ask you to please consider subscribing, even if you don't watch any of the videos.

Numbers really do matter on YouTube – probably even more than on Google or Facebook.

Right now, the [CONTACT YouTube Channel](#) has just shy of 2000 subscribers and I'd really like to get over that hump – then soar past.

And speaking of numbers, the [CONTACT YouTube Channel](#) recently uploaded its 500th video! And, just like that one, the majority of the videos on the channel are not my personal efforts. There's more than 300 military-news videos uploaded too.

Hours of entertainment and edification – totally relevant and supportive of the overall CONTACT brand.

PS. I forgot to video myself writing this editorial.
You're welcome – again ;-)

Sincerely,

Brian Hartigan, Managing Editor

CARINTHIA[®]

GO PROFESSIONAL



G-Loft ISG Hybrid



G-Loft Ultra



NEW! MIG 3.0



VISIT www.premierdefence.com.au

Sole importer and distributor
Premier Defence Agencies Pty Ltd
info@premierdefence.com.au
02 9708 2475

D-DAY LANDON'S



US Army soldiers assigned to the 10th Special Forces Group (Airborne) conduct a parachute drop near the island of Mont Saint-Michel in northern France on 18 May 2019, to rehearse for and promote official commemoration activities to mark the 75th Anniversary of D-Day – the World War Two landings, on 6 June 1944, that paved the way for the Allied liberation of France.

HEADS UP



EA-18G Growler flies over the burbs during Brisbane's Riverfire festival.
Photo by Corporal Kylie Gibson.

GROWLER REACHES IOC

Australia's EA-18G Growler electronic attack aircraft officially reached Initial Operating Capability (IOC) in April 2019.

Chief of Air Force Air Marshal Leo Davies said IOC for the Growler was a significant achievement in Defence's efforts to improve joint electronic warfare capability.

"Over time, this aircraft will work with Army and Navy platforms to enhance our ability to control the electronic environment and, where necessary, deny or degrade the electronic systems of adversaries," Air Marshal Davies said.

"This will provide a capability edge by enhancing tactical options to reduce risks to Australian and partner maritime, land and air forces in more complex and high-tech conflicts of the future."

IOC is defined as "the state achieved when a capability is available in its minimum usefully deployable form".

Growler IOC includes not only the EA-18G Growler aircraft fitted with purpose-built jamming pods as well as a suite of advanced weapons, but also flight-training devices and support facilities at RAAF Base Amberley in Queensland.

Australia initially purchased 12 EA-18G Growlers, but one was destroyed by fire on Exercise Red Flag in Nevada, USA, last year.

Defence has not announced whether it would replace the lost aircraft or whether compensation for the loss was or will be forthcoming – except that the RAAF has officially downgraded its Growler fleet size to 11 on the RAAF's Growler information page.

FOUR DEATHS IN TRAINING

▪ An Australian soldier died in hospital over the Easter break following a training accident at Kapooka.

Recruit Liam Wolf was completing basic training at the Army Recruit Training Centre when he was involved in an incident on Friday, 19 April 2019, and died in a Sydney hospital on the 23rd.

It is believed the recruit fell from the high-ropes confidence course.

Having almost completed training at the time of the accident, he was posthumously promoted to private.

▪ Able Communications Technician Zachary Christopher Yarwood, aged 23, died in hospital on 26 March following a dive-training incident on the 18th at the Devonport Naval Base. He was on an advanced diver training course, looking to join HMNZS Matatua as a diver.

Zachary Yarwood joined the RNZN in 2013 and served in HMNZ Ships Te Kaha and Philomel.

▪ Lance Corporal Nicholas Kahotea, 1st New Zealand Special Air Service Regiment, died in a training accident in Auckland on 8 May 2019.

The counter-terrorism exercise involving New Zealand Special Operations Forces and United States forces, was suspended following the incident but was resumed five days later, with a reduced scope, and paused again on the day of the funeral.

Nicholas Kahotea joined the New Zealand Army in 2006 as a engineer, with an initial posting to the 1st New Zealand Special Air Service Regiment as a specialist searcher in 2008.

He successfully completed NZSAS selection and was badged as an NZSAS operator in December 2014.

He served in Afghanistan.

▪ 21-year-old United States Marine Lance Corporal Hans Sandoval-Pereyra died on 28 May 2019 from injuries received in a vehicle accident during training at Mount Bunday Training Area south-east of Darwin.

He was injured when the HMMWV he was travelling in rolled on Saturday 25 May, a Marine Corps statement said.

The accident happened on a routine training exercise at Mount Bunday.

The Marine was transported by helicopter to Royal Darwin Hospital, where he died.

Another marine received minor injuries in the accident and has since been released from hospital.

May they all Rest in Peace.

F-35 BEGINS GROUND-ATTACK TRAINING

No. 3 Squadron from RAAF Base Williamtown began the first ground-attack training for F-35A Joint Strike Fighter over the Salt Ash Air Weapons Range (SAAWR) in May.

Up to four jets were expected to conduct a number of passes over the range for up to two weeks.

Group Captain Harvey Reynolds, acting commander Air Combat Group, said the initial training runs would involve a series of dry passes over the range, and be followed by gunnery activities.

"SAAWR training activities are an important part of the validation and verification phase for the newly introduced aircraft and the aircrew," Group Captain Reynolds said.

"The program will include

practicing F-35A weapons loading and unloading procedures, and provide gunnery practice, which remains an essential skill for fighter aircrew.

"The F-35A aircraft will operate over the range in a similar manner to the F/A-18 A/B Hornet aircraft," he said.

▪ Two new F-35s were delivered to RAAF Base Williamtown in April, bringing the home-based Australian fleet to four.

F-35As A35-011 and A35-012 joined A35-009 and A35-010 delivered last December.

Australia will take delivery of another eight F-35A aircraft in 2019 and 72 in total.



NEW DEFENCE MINISTRY

Prime Minister Scott Morrison announced his new government on 26 May.

Senator Linda Reynolds has been promoted to Minister for Defence, after spending less than three months in the Defence Industry portfolio.

New Minister for Defence Industry is former Environment Minister Melissa Price, who has experience on the Foreign Affairs, Defence and Trade Committee, and numerous others.

Darren Chester remains as Minister for Veterans' Affairs and Defence Personnel.

AUS 84MM AMMO

NIOA, in conjunction with SAAB, has commenced 84mm production at the Commonwealth-owned munitions facility at Benalla.

The government hopes NIOA's tenancy at Benalla will strengthen and diversify sovereign ammo capability.

KOREA WATCH!

Following a request from the UN, the ADF has deployed military personnel to the Korean peninsula to support the implementation of inter-Korean military agreements.

Chief of Joint Operations Air Marshal Mel Hupfeld said ADF would initially contribute three personnel to support confidence-building activities in the Demilitarised Zone.

RANGES SOLD

Three former Defence rifle ranges have been sold to local councils, to revitalise local shooting.

Clubs in Port Lincoln, Mackay and Maryborough will benefit.

HERC CONNECTS

Six RAAF C-130J Hercules will be fitted with high-speed Internet after scheduled heavy maintenance at RAAF Base Richmond is completed.

RAAF became the first Air Force to fit Ka-Band SATCOM to a C-130J Hercules in 2017.

BN MASCOT DIES

Corporal Quintus Rama – a Bengal Tiger and mascot of 5th Battalion, Royal Australian Regiment – the Tiger Battalion – passed away in May.

The 17-year-old tiger was enlisted as 5RAR mascot in 2012 and was the first mascot to exclusively represent the battalion since it delinked from 7RAR in 2006.

1ST BOXER SENT

The first Boxer for the Australian Army under Project LAND 400 has been despatched from Germany.

When the first few German-built Boxers arrive here, they will receive Australia-specific modifications before final delivery to the Army – including communications and computing equipment, a remote weapon station and camouflage paint.

Rheinmetall will deliver 211 Boxers to the Australian Army, the majority of them built in Queensland, and fitted with 30mm cannons.

Two Northrop Grumman MQ-4C Tritons.
US Navy photo by Chad Slattery.



TRITON ORDERED

Australia has formally ordered the second of a planned fleet of at least six Triton UAV.

Triton is a long-range, long-endurance (24+ hours), unmanned aircraft that is planned to work with and complement the RAAF's manned P-8A Poseidon fleet.

The project is on track to see the first Triton introduced into service in mid-2023 with all six (seven according to the RAAF web site) planned to be delivered by late 2025.

They will be based at RAAF Base Edinburgh in Adelaide, South Australia.

HEADS UP

Photo by Able Seaman Ryan McKenzie



BG ADELAIDE

HMAS Adelaide has for the first time embarked a mechanised combat team including supporting elements to conduct Sea Basing Amphibious Operations over the Joint War Fighter Series in 2019.

A mechanised Combat Team from Battle Group Boar, centred on the 7th Battalion, Royal Australian Regiment, embarked in HMAS Adelaide during a recent visit to her namesake port.

Amphibious Warfare Officer and Head of the Amphibious Department

Vehicles from the 7RAR embark HMAS Adelaide in Adelaide.

on board Adelaide Major Charles De-Zilva said the task was complicated by the shallow tidal window of Port of Flinders in Adelaide's Outer Harbor, during the embarkation period.

"To overcome this constraint, HMAS Adelaide used a pontoon barge to extend the tidal window for its side doors, and a detailed rehearsal and embarkation planning were conducted by the Adelaide Amphibious Task Group and 7RAR to ensure safe and efficient embarkation.

"For Sea Series components of Joint War Fighter Series 2019, Adelaide is the Primary Control Ship for the Amphibious Task Group.

"This task is another first for Adelaide as she will be controlling multiple surface connectors from both HMAS Canberra and Adelaide," he said.

CO 7RAR Lieutenant Colonel Adam Gower said throughout the exercise series, BG Boar would conduct Ship to Object Manoeuvre (STOM) and use a mechanised and air-mobile combat teams from Adelaide.

BIGGEST BAILEY BRIDGE BUILD

The New Zealand Defence Force helped rebuild a bridge that was washed away by April floodwater – with the longest Bailey bridge since WWII.

CO 2nd Engineer Regiment Lieutenant Colonel Terry McDonald said 18 soldiers from his regiment worked with the New Zealand Transport Agency and engineering and construction company Downer New Zealand to replace the bridge.

The New Zealand Army engineers deployed for the duration of the project he said.

The Transport Agency's contracted Bailey bridge installation expert Downer requested the NZDF's support for the reconstruction of the seven-span Bailey bridge, which crosses the Waiho River.

A Bailey bridge is portable, pre-fabricated truss bridge developed by the British for military use during the Second World War.

Once completed, the new 170m Waiho Bridge would be one of the longest Bailey bridges Army engineers had been involved in building since WWII.

KIWIS GET NEW DIVE TENDER

The Royal New Zealand Navy's future dive and hydrographic vessel arrived at Devonport Naval Base Auckland mid May after a long delivery voyage from Denmark.

The second-hand, fully refurbished vessel is currently civilian registered as Edda Fonn.

She will be formally commissioned into Royal New Zealand Navy service in June by Prime Minister Jacinda Adern and renamed HMNZS Manawanui.

The retiring dive tender HMNZS Manawanui entered Devenport for the last time on 23 February, before being officially decommissioned after nearly 30 years of service.

The future HMNZS Manawanui will replace two decommissioned vessels – the hydrographic survey ship HMNZS Resolution and the old dive tender HMNZS Manawanui.

She will be the fourth ship to carry the name.

Built in 2003, Edda Fonn was a Norwegian offshore support vessel.

inspections of two suspect dhows, narcotics were found to be hidden on board.

"The drugs were seized and transferred back to Ballarat for testing and destruction," Commander Johnson said.

Since departing Australia in October 2018, Ballarat has seized more than 9 tonnes of hashish and 1.4 tonnes of heroin, with a total estimated value of AUD\$900 million.

HMAS Ballarat has made nine illicit-drug busts in the Arabian Sea on her current deployment.

Her two most recent seizures included approximately 2.5 tonnes of hashish and 135kg of heroin discovered on two separate vessels on 5 and 7 May 2019.

Commander Paul Johnson, CO Ballarat, said that following boarding and lengthy

Photo by Leading Seaman Bradley Darvill



DRUG-BUSTING BALLARAT

MILITARY SHOP WAREHOUSE CLEARANCE SALE

4th to 9th of June 2019

KICKSTART YOUR FIGURINE COLLECTION WITH 2 FOR 1 DEAL!

Buy any full size figurine and we'll give you a miniature figurine of your choice for **FREE!** Use the promocode **FIGURINE** at checkout!



www.militaryshop.com.au/figurines



MILITARY SHOP

ON LINE: www.militaryshop.com.au PHONE: 02 6123 2950
IN STORE: 65 Kembla Street Fyshwick ACT



Hobart-class Air Warfare Destroyer HMAS Hobart III entered the Captain Cook Graving Dock at Fleet Base East in Sydney in April. She is in for scheduled maintenance and structural modifications to accommodate the MH-60R Seahawk 'Romeo' helicopter. The docking evolution was carried out by the Commonwealth and defence-industry partners and is considered a milestone for the fleet.

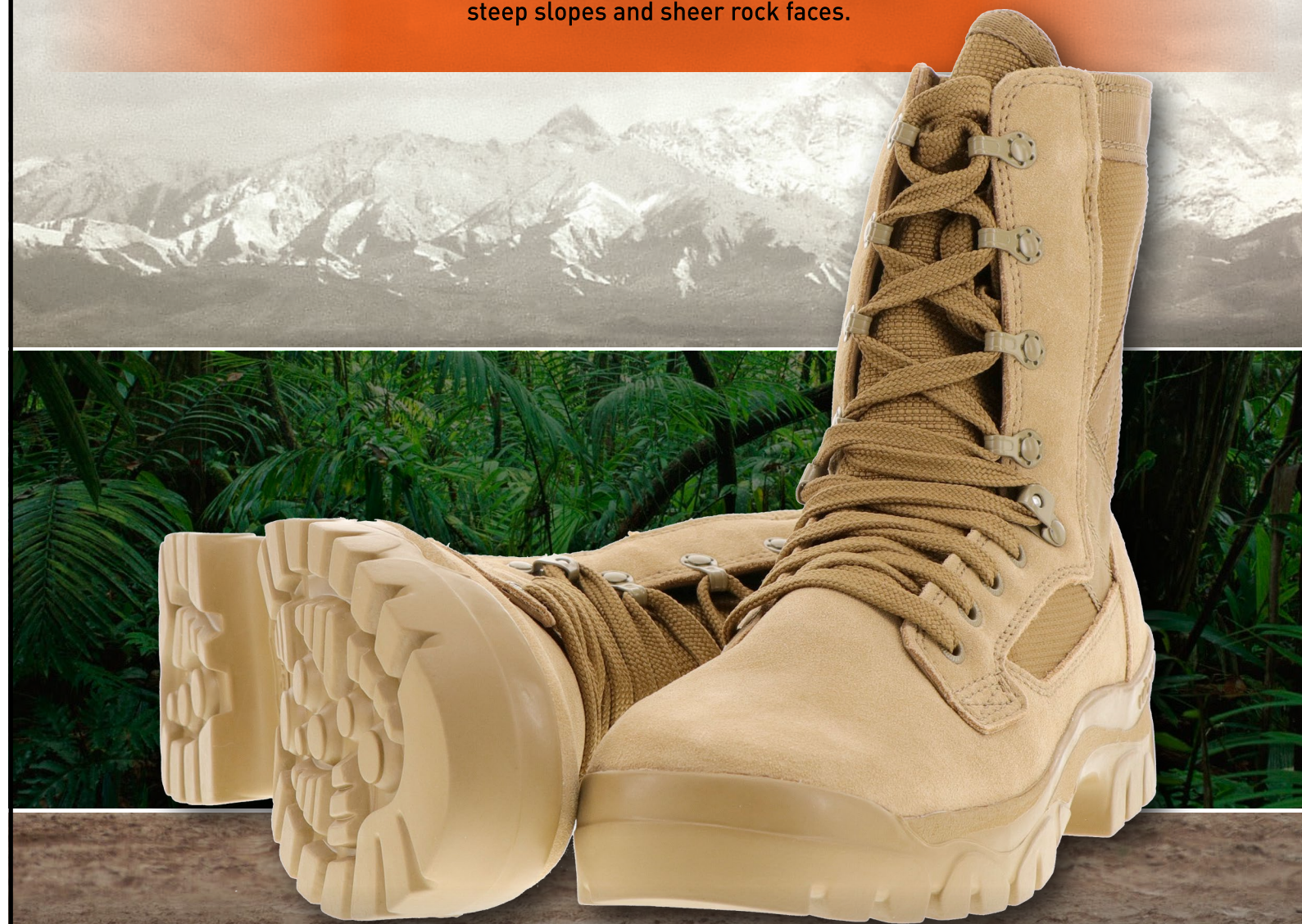
MILITARY SHOP **SALE**

WAREHOUSE CLEARANCE

4th to 9th of June 2019

**GARMONT T8 KHAKIS
NOW AT 20% DISCOUNT!**

The T8 is a multi-terrain tactical boot for unsurpassed comfort and protection even under a heavy load and in demanding field conditions across varied terrain from mud-soaked trails to arid desert sands, steep slopes and sheer rock faces.



www.militaryshop.com.au/features/GarmontT8



MILITARY SHOP

ON LINE: www.militaryshop.com.au PHONE: 02 6123 2950
IN STORE: 65 Kembla Street Fyshwick ACT



Rheinmetall Boxer CRV and an Australian Army Abrams MBT at Mount Bunday, Northern Territory.

THAT'S A QUESTION I'VE BEEN ASKED SO MANY TIMES I FIGURED IT WAS ABOUT TIME I CAME UP WITH AN ANSWER. THIS PHOTO SAYS A LOT, BUT WHEN YOU SEE ONE OF THESE MONSTERS IN THE FLESH, IT'S STILL A REAL SURPRISE.

Boxers – and vehicles like them – are huge. Bigger than anything else Australian Army drivers will take bush – or on public roads – for quite a while.

I used to drive an ASLAV on public roads – I took it to Summernats in Canberra and the Bathurst 1000, and drove it from Canberra to Wodonga and back several times. I nearly killed Tripple J's Merrick and Rosso in it at Parliament House another morning – or so they told their radio audience that afternoon.

Back then I thought ASLAV was a pretty big beast – and doing 101km/hr while overtaking a bus full of Japanese tourists doing 100km/hr, I'm quite certain they thought it was impressive too – taking dozens of photos of it and me as I slid slowly past them, catching bugs in my teeth and wind in my hair in the exposed, driver-up seating position.

Yep, I thought ASLAV was impressive – but fair dinkum, it's no more than a toy compared to Boxer.



LEFT: Aussie soldiers with the Boxer CRV during Ex Chong Ju, Puckapunyal, 2018. Photo by Corporal Nunu Campos.
 ABOVE LEFT: Boxer negotiates an obstacle on Puckapunyal. Photo by Lieutenant Colonel Chris McKendry.
 ABOVE RIGHT: Privates Ingrid Miller and Andrew Cook try Boxer's seats. Photo by Leading Seaman Helen Frank.
 BELOW: Boxer measures up against ASLAV, the vehicle it is replacing. Photographer unknown.



ASLAV weighed in at around 15 tonne, while Boxer is a much closer to 40 tonne (officially 38.5) all-up weight in battle trim.

ASLAV stands 2.7 metres tall to the top of the turret. Boxer is nearly that tall in the chassis, before you add a turret.

Boxer is 1.4m longer and nearly 400mm wider.

And the ASLAV's M242 25mm Bushmaster chain gun is significantly outgunned by Boxer's Rheinmetall MK30-2/ABM 30mm cannon with co-axial 7.62mm machinegun – not to mention the advantages of superior, modern optics, sensors and ballistics computing.

It will also be fitted with anti-tank guided missiles in the form of Rafael Spike LR, a .50cal remote weapon system (majority Australian-made EOS) and an as-yet-unspecified active protection system

(something like Israel's Iron Fist, which detects incoming threats such as RPGs and essentially shoots them out of the sky before they hit).

It also has a laser-warning detection system and an acoustic shooter-locating system.

Yet despite the size, weight and capability differences, Boxer is actually more capable on the road than ASLAV – with more than 60 per cent greater range (1100km v 660km) and marginally faster (officially 101 v 103km/hr) – thanks to an engine delivering more than twice the power – ASLAV's 5.2 litre Detroit Diesel 6V-53T putting out 205kW (275hp) versus Boxer's 15.9 litre MTU 8V199 TE20 Diesel delivering 530kW (711 hp).

That translates to 15.53kW per tonne for ASLAV versus Boxer's 16.1kW per tonne at maximum weight.

And here's a little aside while we're at it – Boxer is permanent eight-wheel-drive with automatic Allison HD4070 transmission (seven gears forward and three reverse) with selectable differential locks, independent suspension, run-flat tyres and central inflation system. The two front axles are steerable and lateral wheel brakes can also assist in tight turns.

But none of this explains why the vehicle is so big to start with.

Boxer, and other modern vehicles of the type, are as big as they are for one fundamental reason – occupant protection.

If you know anything about armoured vehicles of old, and especially if you've ever ridden in the back of one, you will appreciate that it has traditionally been a tight squeeze for passengers.

ASLAV, which Boxer is replacing, and the M113, are very small on the inside.

Picture this – you're an infantry soldier, sitting on a 2-inch foam cushion atop a solid-metal bench seat, squished in tight against your buddies, bumping knees with the bloke opposite. You're wearing patrol-order webbing, your weapon is muzzle-down between your knees and your shoulders and back are arched forward because there just isn't the room to sit up straight. And if you did try to sit up straight, your Kevlar helmet might be tight against the roof, compressing your neck, especially if you're average height or taller.

You're basically riding in a steel can – or aluminium in the M113's case – rattling, rocking and rolling your way, in some discomfort, from point A to point B. And, although the old saying

goes, "a second-class ride is better than a first-class walk", it crosses your mind that the advantage is marginal – especially when the ride hits another bump and your helmet hits the roof – AGAIN.

But here's the thing – what if a mine or an IED goes off under your ride? Now you're in serious trouble. Even if the hull isn't breached, the vehicle will be accelerated upwards against your own inertia, smashing your legs and compressing your spine. Then, just as your body begins to move upwards to follow the vehicle, the vehicle starts to come down, smashing your head against the roof. Then you have to come down again too...

This isn't good, by any measure. Injuries can be very serious, even fatal, just from the force of the blast.

So, what's the solution?

Proper seats for starters – with in-built shock-absorption and seatbelts.

Your feet should ideally be elevated at least 100 to 150mm away from the outside hull, either on a seat-mounted footrest, or a floor that's isolated from the hull. And your head should be a similar distance away from the ceiling. Of course they can't allow for the height of every soldier, but this distance is calculated to accommodate the majority of modern blokes, who are taller on average.

The hull itself is V-shaped in the belly, to deflect at least some of the blast out and away from the hull. And the hull is double-skinned, thanks to the 'passenger' compartment being a detachable, replicable module, bolted into the basic chassis. All together, there's at least 300mm thickness between the outside and the inside skins.



MAIN: Boxer drives off the range at Puckapunyal, Victoria, during vehicle selection trials. Photo by Corporal Sebastian Beurich.

ABOVE: Power-unit change. Bundeswehr photo.





ABOVE: Rheinmetall Boxer CRV at a Fairbairn, in the ACT during air transportability trials.

BACKGROUND: BAE's Patria AMV35 (left) and the Rheinmetall Boxer CRV at a foggy Defence Establishment Fairbairn during Land 400 Phase 2 air transportability trials (June 2017). Photos by Jay Cronan.



Boxer's at Land Forces Conference, Adelaide, 2018.
Photo by Brian Hartigan

The hull is also about 500mm off the ground, thanks to massive run-flat tyres that stand 1334mm (nearly 4-foot-4-inches) tall, on 27-inch rims!

So, if we do the maths on all that...

500mm off the ground + 300mm floor thickness + 150mm foot clearance + 1400mm seated-passenger height + 100mm head clearance + 150mm roof thickness = 2.6m hull height.

And that's just a basic personnel-carrier variant. The turret goes on top of all that in the armed variant, which Australia has ordered.

The relatively slim-lined Rheinmetall LANCE 30mm two-man turret is 600mm tall, plus another 400mm of protruding sensors and optics.

All up, that's 3.6m – or nearly 12 foot tall.

The Australian Army is buying 211 Boxers under Project LAND 400 Phase 2, with a couple of German-manufactured vehicles already delivered for testing and training.

About 25 vehicles will be made in Germany, with Australian experts on hand to learn processes and procedures to bring home to Australia.

Then, from about 2020 onwards, when the Rheinmetall factory is completed in south-west Brisbane, more than 180 Boxer 8x8 combat reconnaissance vehicles (CRV) will be manufactured in the Sunshine State, using Australian steel.

These vehicles will replace ASLAV, progressively rolling into service from 2020, with the rollout complete by 2026.

Project LAND 400 Phase 2 clocks in at about \$5.2billion for acquisition, with close to \$15billion budgeted for sustainment over its 30-year lifespan.

WHAT NEXT?

If you think Boxer is big – next comes Project LAND 400 Phase 3 Infantry Fighting Vehicle – the M113 replacement.

This will be a tracked vehicle, equally as big, much more capable in firepower – and more than double the fleet size, with the project calling for up to 450 vehicles.



Boxer's passenger seats, with gas-strut shock absorption.
Photo by Brian Hartigan

GAME OF THRONES

Members of the public at the Tower of London were treated to a jaw-dropping spectacle as the British Army's Band of the Coldstream Guards performed a rendition of the Game of Thrones theme music, as 'Night's Watch' characters from the global TV phenomenon joined the soldiers in a unique military display.

Emerging from the Blood Gate of the Tower of London, the army of the Night's Watch marched with musicians from the Band of the Coldstream Guards and put on a dramatic sword performance.

The military spectacle was orchestrated by Sky Atlantic to celebrate the launch of the hotly anticipated new season of Game of Thrones (now concluded).

Sky Atlantic partnered with the British Army to choreograph the spectacle, which took more than two months of precise military and musical planning.

Spectators had been expecting a normal Changing of the Guard experience from the Coldstream Guards with the marching classic, The Standard of St George, before they suddenly switched into the Game of Thrones theme tune.

Teeming with almost 1000 years of history, the Tower of London provided the perfect backdrop for the stunt.

The Night's Watch, a fictional military order who defend The Wall on the northern border of the Seven Kingdoms, approached the iconic, British ceremonial parade from the doldrums of the Tower of London, shocking the assembled visitors.

Speaking about the role of the Band of the Coldstream Guards in the stunt, Sergeant Major Richard Maddocks said, "We play all over the world at all sorts of concerts and events, but this was genuinely a career highlight for all of us – I don't think we've ever had an experience like it".



"Given it's a favourite TV programme of many of ours – it made it an extra special experience," Sergeant Major Maddocks said.

"The Night's Watch delighted and I think stunned some of the audience at the Tower.

"They certainly challenged all us musicians into looking our sharpest and playing our military best."

Twelve actors were transformed into The Night's Watch for the stunt, by a team of stylists and make-up artists and wore custom-made and specially-designed costumes that took 10 weeks to create.

The last defence against Westeros, as they are known in the television series, displayed a specially choreographed march and battle-cry to the

Game of Thrones tune played by the Band of the Coldstream Guards, before disappearing back into the darkness of the Tower.

Director of programmes for Sky Entertainment UK and Ireland Zai Bennett said getting to enter a unique partnership with the British Army had been an amazing experience.

"We couldn't have asked for anyone more special to help us celebrate the eighth and final series of Game of Thrones," he said.

"It has been a groundbreaking seven years and, as sad as it is to see it all come to an end, we are ecstatic about what's in store for the millions of fans eagerly awaiting the finale."



I loved the final season and the last episode – because it wasn't a romantic or predictable 'Hollywood' ending. I'd love to hear what you thought...
editor@militarycontact.com



Wandering Warriors is a charity dedicated to providing care, support and opportunities to veterans and their families through mentoring, education, employment, events and other services.

To keep our programs running we need your help! To assist us you can donate, purchase our merchandise, volunteer or become a corporate sponsor. To find out more, please go to:

wanderingwarriors
 saluting their sacrifice



www.wanderingwarriors.org



Welcome to the Jungle

United States Marine Lance Corporal Daniel Ortega establishes security in a village during jungle warfare training at the Combined Training Centre - Jungle Training Wing in Tully, Queensland, during a combined training exercise with the 5th Battalion, Royal Australian Regiment. Photo by Corporal Julia Whitwell.



Marine Rotational Force-Darwin (MRF-D) and the 5th Battalion of the Royal Australian Regiment (5RAR) conducted jungle training together at Combat Training Centre – Jungle Training Wing (CTC-JTW) at Tully in north Queensland, from 12 to 21 April 2019. The purpose of this training was to improve the individual and collective skills of the marines and soldiers, so they can effectively operate in jungle environments.

During the training package the Aussie soldiers and US Marines enhanced their field-craft skills, rehashing everything from personal camouflage and basic patrolling, to ambushing, search techniques, detainee handling and marksmanship on a live-fire range.

The Australian Army is continuously striving to improve the capability of its soldiers, and CTC-JTW is an excellent training establishment to not only enhance jungle operations skills, but to also build personal resilience and initiative, and to enhance trust and teamwork – and sharing those skills with, or subjecting their American brothers to the pleasures of Tully is always fun.



Marines from I and III Marine Expeditionary Force are in Australia with a Marine Air-Ground Task Force, similar in size to a Marine Expeditionary Unit, consisting of a Command Element, Ground Combat Element, Logistics Combat Element – and the most potent Aviation Combat Element yet, including MV-22 Osprey, AH-1Z Vipers and UH-1Y Venoms.

MRF-D has grown in size and complexity since the first rotation of 200 US Marines in 2012.

The main body of MRF-D 2019 is comprised of approximately 1700 marines and sailors, still short of the hoped/planned increase to about 2500 in future rotations.

This eighth rotation arrived in Australia in April and have set a cracking pace of exercises and activities, not just with Australian soldiers in the Northern Territory.

Spreading out across the country and even overseas, various elements of MRF-D have exercised with Australian and Japanese soldiers in Queensland, and travelled further afield as participating members of Australia's Indo-Pacific Endeavour 2019 –with plenty of training time left in the year yet.

ABOVE: USMC Lance Corporal Cooper Hettinger yells target indications during a platoon attack. Photo by Private Brodie Cross. **TOP RIGHT:** 5RAR's Lance Corporal David Druery scans for enemy. Photo by Private Brodie Cross. **RIGHT:** USMC Lance Corporal Andre Payton and 5RAR Corporal Troy Wyley provide security during a platoon attack. Photo by Private Brodie Cross. **FAR RIGHT:** USMC Lance Corporal Isaiah Barnes watching for drop bears. Photo by Corporal Julia Whitwell.



US Marine Corps Lance Corporal Aaron Moore, a rifleman with the Ground Combat Element, Marine Rotational Force - Darwin, conducts a patrol during jungle warfare training in Tully. The training, with Australian soldiers from 5RAR, was conducted to condition the warfighters to thrive in 'close' tropical environments and give them opportunities to prepare for arduous jungle-warfare scenarios.
US Marine Corps photo by Lance Corporal Nicholas Filca.

We think Lance Corporal Moore was trying not to think about the hundreds of Australian animals, insects and even plants that were put on this continent just to kill *him*.



> **LIGHTWEIGHT**
FLEXIBLE
INTELLIGENT

LIGHTER, **BETTER,** **FASTER**

CARL-GUSTAF **M4**

For dismounted infantry on the modern battlefield, speed can be the difference between life and death. To be effective, soldiers need to react quick—the operation's success depends on it.

The new Carl Gustaf M4 multi-role weapon system won't slow you down. Building on its predecessor's success, it's shorter and lighter at less than seven kilos. The M4 keeps troops agile.

Saab's *thinking edge* technology spans an 80 year heritage with innovation at its core.

With the Carl-Gustaf M4, smart just got smarter.

SAAB.COM.AU



Not. Just. Buckles.



Accessory



Ovalo
3-Way Auto-Lock



Prium ID

To find a Retailer or for Retailer or Retailer Enquiries:

Australian Distributor

Premier Defence Agencies
PO Box 5411 Chullora NSW 2190
Info@premierdefence.com.au
www.premierdefence.com.au

WINGS OVER

BEAUTIFUL ONE DAY –
~~PERFECT~~ TORRENTIAL
THE NEXT ;-)

It was an airshow of contrasts for Wings Over Illawarra in 2019 – the old and gracefull contrasted beautifully against the modern and mostly loud – perfect no-wind sunshine on Saturday contrasted starkly against gusting cross-winds and torrential showers on Sunday.

Amazingly and thankfully though, not even Sunday's weather dampened the enthusiasm of either the public or the pilots, with thousands braving a drenching in favour of spectacular flying displays between downpours.

Photographically, too, I think Sunday was the better day, with clouds, mists and streaked sunshine adding a plethora of very memorable shots to CONTACT's file-photos catalogue.

Billed as Australia's best annual airshow (because Avalon is biennial), Wings Over Illawarra is a CONTACT favourite – not least because it's only 10km from my front door.

And this year was probably my favourite so far – mainly for the variety of spectacular flying, in varied weather conditions, against the never-get-tired-of Illawarra escarpment backdrop.



Also impressive, as always, on ground display was the record-breaking (non-stop London to Sydney) Qantas 747 as well as our old favourite 'Connie' the Super Constellation, now fully restored.

Four RAAF Roulettes, in their new PC-21 aircraft and paint-scheme, kicked off the aerial action.

This being the Roulettes first official outing without PC-9, they were restricted to basic formations and a solo handling display (a full-on, new aerobatics routine not expected to be officially unveiled until later this year – probably at the RAAF Airshow at RAAF Base Edinburgh on 9 and 10 November).

Other Defence notables also graced the sky – C-27J Spartan (above)(easy to see why some call it the 'Baby Herc'), C-130J Hercules, C-17 Globemaster III (previous page), MH-60R 'Romeo' (above right), P-8A Poseidon and the Hawk 127 (right) rounding out the day's flying with a bang (Wall of Flame on next page).

While Hawk is certainly loud, fast and pretty impressive, it really couldn't make up for this year's notable absentee – F/A-18 – which was otherwise engaged in the Northern Territory on Exercise Diamond Storm.



TOP: CAC CA-18 Mustang.
ABOVE: CAC CA-27 Sabre Mk.32.



ABOVE: North American T-28 Trojan.
BELOW: CAC CA-18 Mustang.
BOTTOM: Grumman TBM 3E Avenger.



There was an awesome collection of Australian-owned warbirds at Wings Over Illawarra this year too – not surprising, given the genesis of the airshow in the Historical Aircraft Restoration Society's Albion Park Rail premises.

Of course there were HARS aircraft aplenty on display, including the venerable and now very rare F-111, with it's (even rarer) cockpit open for enthusiasts to sit in.

Many of the flying aircraft were visitors, however, flying in from collections all over Australia.

And as the Australian warbird registry grows year on year – with more than 300 aircraft currently registered – there was news of even more coming on line in the not-too-distant future – several 'new' and iconic warbirds among them.

In other, related, warbird news too, Temora Aviation Museum (famous for its warbird collection

and its own *Warbirds Downunder* Airshow) recently announced it has transferred ownership of some of its most valuable warbirds to the RAAF.

Eleven historically-significant aircraft have been donated to the RAAF as it prepares to celebrate its centenary in 2021, but TAM will still maintain and house the aircraft under the five-year contract.

The aircraft are – an English Electric Canberra, de Havilland Vampire and Tiger Moth, Gloster Meteor, Lockheed Hudson, CAC Wirraway and Boomerang, Cessna A-37B Dragonfly, Ryan STMS2 and two Spitfires. The CAC Avon Sabre operated by TAM is already owned by the RAAF, so will also be included in RAAF events.

A RAAF spokesman said that as the Service approached its centenary, this agreement would ensure the historic aircraft could continue to be preserved, remembered and displayed.





While Felix the Cat – who adorns the flanks of the Historical Aircraft Restoration Society's Consolidated PBV Catalina flying boat – may be a happy chappie, Wings Over Illawarra airshow organisers weren't so chirpie in the slipstream.

Following what seemed to the experienced outside observer to be a very successful event, Bright Events chiefs told several local media outlets the show was a financial loss-maker, struggling to survive (CONTACT can certainly empathise).

However, we feel the event is almost 'too big to fail', and with passionate and committed organisers like Mark and Kerry Bright working feverishly behind the scenes, we think –and certainly hope – that it will survive, and thrive.

But, to ensure that Wings Over Illawarra does stay as New South Wales' 'second-biggest regional annual event', do make sure you support it next year.

CONTACT certainly will.

NA CONTACT 0519

NAKED ARMY®

OPERATORS

PLATATAC MODERN FIGURINES

30CM
LIMITED
COLD CAST
BRONZE

SEE OUR RANGE OF FIGURINES & HERITAGE PHOTO FRAMES

WEBSITE www.naked-army.com CALL US TOLL FREE 1800 731 490

Reap the rewards of the best Defence
Discount program in Australia

SAVE THOUSANDS OF DOLLARS ON

your favourite brands

JOIN TODAY

www.apod.com.au

BAKER

BALLISTICS

Level III+ & IV Ballistic Shields
Designed for **Active Shooter Response**

ORDER NOW;

New RAAF VIP Jet

The first of the Royal Australian Air Force's new Dassault Falcon 7X aircraft arrived in Canberra on 16 April.

The new aircraft, being leased by RAAF, replace the Bombardier CL604 Challengers and provide a larger passenger load, modern communication and increased range and endurance.

Wing Commander Jason Pont, Commanding Officer of 34 Squadron, said the Falcon complemented RAAF's larger Boeing 737 Business Jets.

"Falcon 7X is an advanced business jet designed and manufactured by Dassault Aviation," Wing Commander Pont said.

"The jet has a standard crew of three – pilot, co-pilot and cabin crew – and can carry up to 14 passengers.

"With a maximum operating speed of Mach 0.9 and a range of up to 11,000km, the aircraft can fly from Canberra to anywhere in the world with only one stop.

"Its ability to land at almost any airfield provides notable regional and remote accessibility."

Falcon features a high-tech wing, an advanced 'glass cockpit' with heads-up display and an infrared enhanced vision system.

It also has satellite communications to support government business while airborne.

The aircraft will be operated by Number 34 Squadron as part of the Special Purpose Aircraft fleet, based at Defence Establishment Fairbairn in the Australian Capital Territory.

The fleet will be maintained by Northrop Grumman.



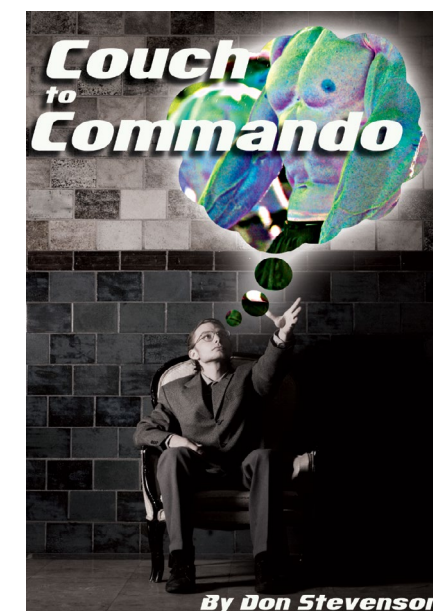
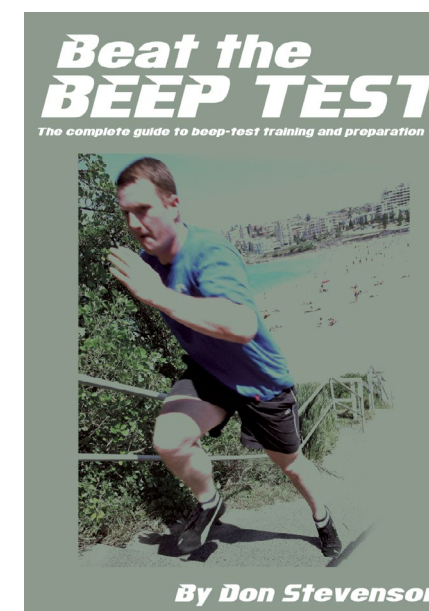
A new Dassault Falcon 7X aircraft at Fairbairn, ACT. Photo by Sergeant Rodney Welch.



"Modern military athletes cannot expect to get combat fit on a diet of pushups and running"

**TWO IN-DEPTH
FITNESS E-BOOKS
BY DON STEVENSON
AVAILABLE FROM
'MILITARY FITNESS'
ON OUR WEB SITE**

20%
of purchase price
donated to
Soldier On



CONTACT's Military Fitness Centre

Welcome to the **CONTACT Military Fitness Centre**, with excellent, expert and **FREE** fitness advice from....



**Find dozens of free
fitness articles on the
CONTACT web site.**

INDO PACIFIC ENDEAVOUR

KEY STRATEGIC- ENGAGEMENT ACTIVITY



HMA Ships Canberra and Newcastle. Photo by Leading Seaman Christopher Szumlanski.

Indo-Pacific Endeavour 19 (IPE19) – the third iteration of this strategic-engagement activity – was launched in Western Australia on 11 March 2019 with the departure of HMA Ships Canberra, Success, Newcastle and Parramatta and 1200 Navy, Army and Air Force personnel from Fremantle.

According to official Defence information, the fleet was tasked to carry out a series of engagement activities and military-training exercises during port visits in (alphabetically) India, Indonesia, Malaysia, Singapore, Sri Lanka, Thailand and Vietnam.

However, the Task Force's own Facebook page was much more comprehensive, reporting from (by date) Cocos (Keeling) Islands, Colombo and Trincomalee in Sri Lanka, Chennai and Visakhapatnam Port in India, Langkawi and Port Klang near Kuala Lumpur in Malaysia, Phuket in Thailand, Nha Trang in Vietnam, Changi Naval Base in Singapore, and finally, Jakarta in Indonesia.

IPE19 encompassed a wide range of activities, including disaster-assistance planning,

multinational naval manoeuvres and training serials with partner security forces.

One good example was that of a team of Navy clearance divers embarked on HMAS Success who took full advantage of an opportunity to strengthen ties with their Sri Lankan Navy counterparts in a joint training initiative.

Conducted at the Sri Lankan Navy Base in Trincomalee on the north-east coast of the island, the training involved a series of activities and exchange of ideas based mainly on the disposal of improvised explosive devices.

Clearance Dive Team 4 Executive Officer Lieutenant James Leeds said the interaction provided a valuable opportunity for the two navies to share ideas and experiences in the field of ordnance disposal.

"We conducted a number of important serials with our counterparts from the Sri Lankan Navy, including demolition serials both on land and underwater, as well as exchanging IED-disposal

techniques in a classroom environment," Lieutenant Leeds said.

"By conducting activities such as this, we can see first-hand how the Sri Lankan Navy operates in this field, and likewise they were able to do the same with us.

"Both parties learned a lot."

Also, in Puttalam, the Sri Lankan Navy showed off capabilities of its small-boat squadrons, which are ready to respond on the country's waterways to disaster scenarios.

The Rapid Action Boat Squadron (RABS) and the Rapid Response Rescue and Relief Unit (4RU) are elite units with two very different roles to play in the maritime space.

RABS Commanding Officer Lieutenant Commander DDK Duminda Dayananda said the squadron was first established in 2006 to combat the threat of waterborne terrorism.

"RABS was established in a time when terrorism was a real threat, but when the Sri Lankan war

ended in 2009, 4RU was stood up to respond to humanitarian assistance and disaster relief."

4RU demonstrated several real-world disaster situations at their highly effective and specially built simulation site, featuring a natural estuarine system to replicate a flooded village, where the unit demonstrated rescue operations by boat, land, air and across water gaps.

A village buried beneath a landslide had also been cut into the landscape and the Australian contingent watched as 4RU members conducted search-and-rescue operations with dogs and specialist equipment.

Lieutenant Commander Dayananda said the exchange of experience was great for his unit and he felt the Australian Defence Force members got a lot out of it too.

"Disasters are a global issue and, as militaries, we should work together to save lives."

HMAS Canberra's Commander Amphibious Division Lieutenant Colonel Rory Hale agreed.



"We witnessed a very capable Sri Lankan Navy simulate a recovery operation from a landslide event," Lieutenant Colonel Hale said.

"Activities like this are important for Australia and Sri Lanka. Should a natural disaster occur and the ADF is requested to support, we have already formed key relationships and have a greater understanding of each other's capabilities."

Back on the water, and throughout IPE19, HMAS Newcastle provided primary defence for HMAS Canberra and the wider fleet.

As she transits from west to east on what will be her final mission, the Adelaide-class guided-missile frigate has been at Canberra's side throughout.

Operations room supervisor and combat systems supervisor Petty Officer Bianca Sherrington said Newcastle used sensors and liaised with the other ships to provide an up-to-date force picture for the Joint Task Force.

"Newcastle is the air-warfare and electronic-warfare coordinator in charge of the air, space and electronics spectrum – we're the superior air-defence unit with our long-range missiles," Petty Officer Sherrington said.

"As a warship, we are more tactically focused – it's our job to protect the high-value ship, Canberra."

Newcastle's ship's company also participated in military-to-military training, community engagement activities and diverse maritime evolutions throughout the deployment.

"Some of our interactions with partner nations have been unique to IPE19, such as live contact time with a kilo-class submarine in India," Petty Officer Sherrington said.

"We were able to demonstrate interoperability during our participation with the Indian Navy through several successful serials."

Principal warfare officer Lieutenant Hayden Clark said it had been an honour to be part of IPE19.

"Newcastle is a fundamental force to the IPE19 mission and she has integrated well into the Joint Task Force," Lieutenant Clark said.

"Even though she is an older ship with older combat systems and sensors, she's very capable, with a highly efficient team that delivers complex warfare capability to the task group."

Newcastle has about 200 personnel embarked, varying in trades, roles and rates.

About 60 form the Action Information Organisation, which ranges from boatswain's mates, communication information system sailors and combat systems operators.

"Being a much smaller ship than Canberra, each person has first and secondary roles – we're a really tight team," Lieutenant Clark said.

"It's been a very busy deployment but also a very productive one."

"I've really enjoyed the experience and it has been a privilege to be part of the ship's legacy."

When she gets home from IPE19, HMAS Newcastle will visit her namesake city, then ceremonially decommission in Sydney later this year.

With four ships at sea for such a long period, replenishment of fuel and supplies was important and it was the professional and passionate crew of HMAS Success who delivered as needed.

Also on her final mission before decommissioning, HMAS Success' flight-deck crews worked together



OPPOSITE: Midshipman Samuel Rembridge takes bearings from the bridge of HMAS Success.

ABOVE: Crewmembers on HMAS Newcastle keep a distance line to HMAS Success taut during a replenishment at sea:

Photos by Leading Seaman Christopher Szumianski:

in hot and humid tropical conditions to prepare 'palnets' (palletised cargo nets) of frozen food for vertical lift by helicopter to the other ships.

Success also celebrated her 33rd birthday at sea, with Commanding Officer Captain Darren Grogan and his crew marking the occasion with a slice of birthday cake and a deck party for their beloved 'Battle Tanker'.

Captain Grogan said that despite her age, Success was still maintaining an extremely high-tempo during her four-month decommissioning deployment.

"Success – also known as the First Lady of the Fleet – is the oldest ship in the Royal Australian Navy, but don't be put off by her age – she remains at the top of her game," Captain Grogan said.

"In fact, last year we conducted 100 replenishments at sea, which is more than the ship had achieved in a single year for more than 20 years," he said.

Moving on to Thailand, the 800 members of Canberra's and Newcastle's companies and embarked forces tucked into a busy program, which included humanitarian-assistance and

disaster-relief demonstrations from both Australian and Thai forces, as well as a variety of community engagements.

Air Commodore Owen said the visit to Thailand built on a long history of Australian and Thai cooperation to address shared security challenges.

"Our strong defence relationship has a 70-year history, covering a variety of areas crucial to maintaining regional stability and security," he said.

"Our nations have time and again proven their ability to work together when required, having both contributed to UN missions in East Timor, South Sudan and Iraq, as well as Combined Maritime Forces patrols in the Gulf of Aden."

"The humanitarian-assistance and disaster-relief demonstrations during IPE19 facilitated greater knowledge-sharing between our militaries, ensuring more seamless integration when responding to potential future events."

Moving on from Thailand, late April saw the fleet in Malaysia for a series of cultural exchanges and training activities with the Malaysian Armed Forces, as well as commemorative activities for Anzac Day.



LEFT: Private Matthew Jamiso, 3RAR, on a live-fire exercise at Terendak Barracks, Malaysia. *Photo by Able Seaman Kieren Whiteley.*

CLOCKWISE FROM TOP LEFT OPPOSITE: Leading Seaman Istvan Dobo demonstrates an explosive ordinance countermeasure to a Sri Lankan Navy diver at Trincomalee, Sri Lanka; Petty Officer Jason Wickman observes a cargo lift from HMAS Success by MRH-90; Petty Officer Brendan Pugh demonstrates an explosive ordinance countermeasure to a Sri Lankan Navy diver at Trincomalee; Able Seaman Tylor Bootle and Able Seaman Yasmin Dench attach a palnet to an MRH-90 on HMAS Success. *Photos by Leading Seaman Christopher Szumlanski.*



Commander IPE19 Joint Task Force Air Commodore Rick Owen said the visit to Malaysia was a highly anticipated part of the Indo Pacific Endeavour program.

"Australia and Malaysia's defence relationship is longstanding and one of Australia's closest in south-east Asia, underpinned by the close people-to-people links, which were further developed over this visit," Air Commodore Owen said.

"We were particularly looking forward to training opportunities with the Malaysian Armed Forces, including jungle-warfare training, subject-matter expertise exchanges and a reciprocal band activity."

And Anzac Day commemorations in Kuala Lumpur were also very special, with more than 1000 Australian and New Zealand sailors, soldiers, aviators and officers on hand to commemorate the 104th anniversary of the dawn landings on the Gallipoli peninsula.

On 4 May, HMAS Newcastle, in company with IPE19 flagship HMAS Canberra, made her final transit through the busiest and most complex waters in the world – the Straits of Malacca and Singapore.

Navigation officer on HMAS Newcastle Lieutenant Mitchell Smith shouldered responsibility for the tricky transit.

"As the main shipping channel between the Indian Ocean and the Pacific Ocean, the Straits of Malacca and Singapore are some of the most strategic straits in the world," Lieutenant Smith said.

"About one third of the world's oil production passes through here.

"That's about 50,000 ships passing through an area only 2.7 kilometres wide, and represents about 25-30 trillion dollars in global trade.

"Add on top of that the international law of territorial waters and archipelagic sea lanes, this becomes a very complex transit."

Lieutenant Smith also had to ensure Newcastle did not break any international laws or agreements in the area.

"These straits are backed on to a number of nations that patrol the area and prevent acts of illegal activity known to occur throughout the straits and the South China Sea," he said.

"It's very important as a team that the whole ship is working together to ensure we safely transit these

waters, protect our ships in company and also the merchant traffic in the area."

During the passage, the bridge thrummed with activity with all hands on deck to monitor other ship movements and potential navigational hazards.

Boatswain's mates on each bridge wing, one on the gunnery direction platform and one at the helm formed a quick-response-force team.

Commanding Officer HMAS Newcastle Commander Anita Sellick said passing through the highly congested sea-lane was a complex task with other ships involved.

"There are many maritime boundaries that are adjacent to one another and above these maritime boundaries are also air-space boundaries," Commander Sellick said.

"That's where Newcastle's strength lies – we provide force projection and air protection to the

task force as we navigate these congested waters together."

On 7 May, HMA Ships Canberra and Newcastle pulled in to Cam Ranh Bay, Vietnam.

Air Commodore Owen said the visit was an important opportunity to increase defence cooperation between the two countries – a youthful relationship that had been upgraded just last year.

"Our defence engagement with Vietnam only started in 1998, but in the intervening years we have become important partners in helping to ensure the region remains safe, secure, open and prosperous," Air Commodore Owen said.

The relationship with Vietnam was upgraded with a Joint Vision Statement on Enhancing Defence Cooperation, signed in November 2018.

Australia's Defence Cooperation Program with Vietnam includes English language



OPPOSITE: ARH Tiger helicopters operate from HMAS Canberra. *Photo by Able Seaman Kieren Whiteley.*

ABOVE LEFT: Leading Seaman Sam Barber marshals HMAS Canberra's MRH-90. *Photo by Leading Seaman Jake Badior.*

ABOVE RIGHT: Able Seaman Brandon Davies and other divers prepare to conduct an inspection of HMAS Canberra's hull. *Photo by Leading Seaman Jake Badior.*

training, maritime security, officer development, peacekeeping, aviation safety, military medicine and counter-terrorism.

"This visit is an important part of strengthening our partnership," Air Commodore Owen said.

Adding weight to the Vietnam visit, Australia's Deputy Chief of Army also visited.

Major General Anthony Rawlins toured HMAS Canberra and watched training activities involving soldiers from 3RAR.

Private Jayden Page, on his first deployment overseas, was part of that demonstration.

"We simulated a capture-or-kill exercise where an enemy force took control of the flight deck on board Canberra and planned to conduct operations from there," Private Page said.

"This kind of training is invaluable for us – we work across the Navy and with foreign militaries sharing techniques and building our skills.

"Being on Canberra allows us all to come together and work as one force."

That is the new norm, according to Major General Rawlins.

"The Army is a maritime force and we need to build upon our relationships in the joint space with Navy and Air Force so we can project ourselves into the region and build capacity with our partner nations," Major General Rawlins said.

Another Army capability exercised during IEP19 was the embarkation of four Tiger armed reconnaissance helicopters and associated support on HMAS Canberra.

However, the Tigers did not originally deploy with the ship, instead transported by RAAF C-17 from their home base in Darwin to Kuala Lumpur's international airport, then flown to marry up with the ship in Port Klang.

Such a deployment not only provided a significant opportunity to train aircrew and ground staff for day and night operations on HMAS Canberra, but was an excellent shakeout of 'strategic projection' with the RAAF.

Tiger pilot Captain Daniel Tidd said the opportunity to train onboard HMAS Canberra had several benefits.

"Exercising with the Navy enables 1st Aviation Regiment the opportunity to work together to integrate the aviation and maritime assets," Captain Tidd said.

"It also allows our groundcrew aviation support, maintainers and aircrew the opportunity to live, work and train on board in order to understand how we conduct sorties from the ship."

Once certified for the Navy's Landing Helicopter Dock, tiger will allow the Canberra-class ships to be declared completely operational as an amphibious platform.

"Our aim is to replicate the mission profiles we conduct on land. From there we will be able to layer different operational components but adapt our point of origin to the maritime domain," Captain Tidd said.

"This is the first significant deployment for the ARH and 1st Aviation Regiment onto a maritime platform.

"It's a big step that offers a lot more choices, broadens our capability and offers commanders more options.

"The ADF's amphibious capability, with air-mobile and air-assault operations from a maritime platform, is now a possibility."

After Vietnam, it was back to Singapore for another suite of activities, including participating at Imdex Asia – a major biennial naval trade expo.

For the first time, Indo Pacific Endeavour incorporated Australian defence-industry representatives, showcasing some of Australia's defence-industry capabilities and services during official receptions on board HMAS Canberra.

"IMDEX Asia provided the IPE19 Joint Task Force with an opportunity to discuss the value of these partnerships to a stable region with a wide and influential audience," Air Commodore Owen said.

"Our visit this week was about working closely with Singapore and other partners to progress our defence relationships, so that we're a stronger, more capable and interoperable force when it comes to enhancing the security of both countries and the broader region."

The bright lights of Singapore gave way to those of Indonesia's capital for HMA Ships Canberra and Newcastle on 18 May, while HMAS Success visited Makassar in South Sulawesi.

In Jakarta, members of the Joint Task Force conducted a series of civilian and military engagements, and were joined by Australian Chief of Navy Vice Admiral Mike Noonan for high-level talks with Indonesian National Armed Forces officials – while in Makassar, IPE19 members conducted a similar program, hosting local authorities and Ramadan activities.

Indo Pacific Endeavour 2019 departed Indonesia on 23 May and arrived back in Australian waters on the 26th, stopping first in Darwin before proceeding south and home.

Chief of Joint Operations Air Marshal Mel Hupfeld said this third iteration of IPE had been one of the most ambitious regional-engagement activities undertaken by the Australian Defence Force.

"With four ships and various aircraft, more than 1200 personnel from across the ADF, partner nations and Defence industry, this was a landmark activity for our modern joint force," Air Marshal Hupfeld said.

"IPE 19 was a sophisticated demonstration of joint-force integration, combined interoperability with partner forces, and military diplomacy."



ABOVE: HMAS Canberra. Photo by Corporal Kylie Gibson.

BELOW: HMAS Newcastle. Photo by Able Seaman Kieren Whiteley.



SOLDIER ON HELPING OUR WOUNDED WARRIORS



SOLDIER ON IS ABOUT AUSTRALIANS COMING TOGETHER TO SHOW THEIR SUPPORT FOR OUR WOUNDED. IT'S ABOUT TELLING OUR DIGGERS THAT WE WILL ALWAYS HAVE THEIR BACKS; THAT WE WILL REMEMBER THOSE WHO HAVE COME HOME, AS WELL AS THOSE THAT HAVE DIED. IT'S ABOUT GIVING THE WOUNDED THE DIGNITY THEY DESERVE AND THE CHANCE TO DO AND BE WHATEVER THEY CHOOSE.

SOLDIER ON IS ABOUT THE ANZAC SPIRIT, AND MATESHIP AND ALL AUSTRALIANS KEEPING THEIR PROMISE TO TAKE CARE OF OUR WOUNDED WARRIORS.



INSPIRE, ENHANCE AND EMPOWER

Our wounded have done their part for Australia, they have given their best. Thousands have wounds, some you can see and some you can't. It is now Australia's turn to look after them, please give generously and make a difference in our wounded warriors lives.



SoldierOnAustralia

WWW.SOLDIERON.ORG.AU



@SoldierOnAust

Exercise CHONG JU 2019



An M1 Abrams tank fires its 120mm cannon during the combined-arms live-fire activity Exercise Chong Ju 2019 at Puckapunyal Training Area, Victoria.

A fighting force of tanks, helicopters, armoured reconnaissance vehicles and infantry soldiers showcased Australian Army's combined-arms capabilities during a live-fire demonstration at Exercise Chong Ju in Puckapunyal, Victoria, in May.

Spectators witnessed the versatile and decisive force of the Army through a fictional operational scenario that showcased capabilities including M1A1 Abrams tanks, Australian Light Armoured Vehicles (ASLAVs), M777A2 howitzer, Tiger armed reconnaissance helicopter and infantry minor-team tactics.

Chief of Army Lieutenant General Rick Burr said Exercise Chong Ju demonstrated Army's preparedness for operational deployments, and showcased its capabilities to its future leaders and partners in defence industry.

"This exercise is an opportunity for Defence leaders and defence industry to see how the Australian Defence Force systems work in unison and their effects on the battlefield in a potential operational scenario," Lieutenant General Burr said.

"We are an Army in motion. We are prepared to deploy our versatile capabilities for the joint force,

TOP RIGHT: A Tiger armed reconnaissance helicopter fires its 30mm cannon.

OPPOSITE: Corporal James Townsend, Combined Arms Training Centre, launches a Wasp UAV.

FAR RIGHT: Lachlan Theobald from Defendtex learns about 155mm artillery ammunition from Lance Bombardiers Harry O'Conner and Darryl Griffin.

BOTTOM RIGHT: An M777 howitzer in action.

Photos by Corporal Kyle Genner.

which requires us to be ready to assist in crises here at home and across the globe, now and in the future."

The exercise is primarily designed to provide staff cadets of the Royal Military College – Duntroon with an opportunity to view the breadth of roles open to them upon graduation later this year.

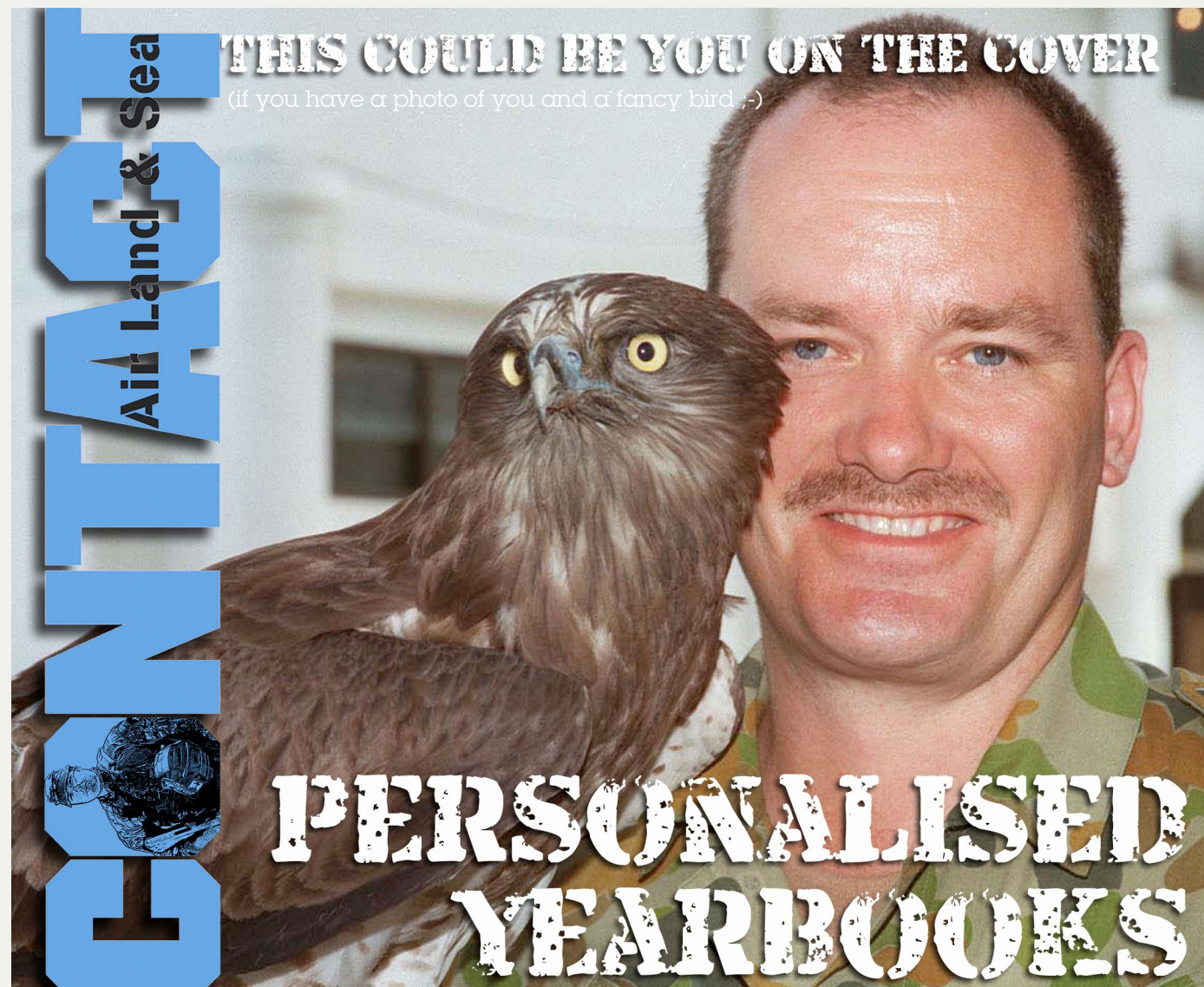
Exercise Chong Ju is an annual Army exercise named after a battle in North Korea in 1950 when the 3rd Battalion, Royal Australian Regiment, supported by tanks and artillery, attacked and captured a large North Korean defensive line during their northwards advance to the Yalu River.



CONTACT HARD COVER COFFEE TABLE BOOKS

NOW WITH
FREE CUSTOMISED-COVER UPGRADE

Buy the yearbook as normal, then send us your favourite photo so we can make you (or a friend) the covergirl (or boy) on your very own **CONTACT Yearbook**



2015



2016



2017



2018

ORDER HERE

All these books can be customised – **FREE**. Simply send us your favourite (high-resolution) photo and we'll put that on the cover of 'your' new CONTACT coffee-table book.

Send photos and/or special headline requests to editor@militarycontact.com



Invictus Games

These are print-on-demand books. Allow up to 30 days for print and delivery after ordering.

Exercise JACKA RUN 2019



Private Ashleigh Burnard from 10th/27th Royal South Australia Regiment leads a patrol on Exercise Jacka Run 2019 at Puckapunyal Training Area, Victoria. Photo by Lieutenant Reece Calvert.

Exercise Jacka Run was an impressive field exercise held at Puckapunyal Victoria in April 2019, involving two of the Australian Army's reserve brigades.

Victorians from the Australian Army's 4th Brigade joined forces with South Australians and Tasmanians from the 9th Brigade to raise a 500-strong battle group known as Battle Group Jacka.

The exercise was designed to test the collective capability of two Army reserve formations working as one to form a reinforcing battle group.

It also included members of the 3rd Battalion, Royal Anglian Regiment, visiting from the UK participating in their own Exercise Morlancourt.

Battle Group Jacka completed warfighting activities including combat manoeuvres, protected-mobility-vehicle operations and coordinating fire support and logistics.

This exercise was a milestone in the training continuum for Battle Group Jacka, as it prepares to support the Australian Army's 1st Brigade in Queensland on Exercise Talisman Sabre in July.

During this penultimate exercise, Battle Group Jacka was also evaluated for deployment to

CLOCKWISE FROM TOP-LEFT OPPOSITE: A British Army soldier from 3 Royal Anglian Regiment prepares a map plan for an Exercise Jacka Run activity. Photo by Lieutenant Reece Calvert: A soldier from 8/7RVR dismounts from a Bushmaster. Photo by Private Michael Currie: Sergeant Blondell 10/27 RSAR gives orders during a platoon attack. Photo by Lieutenant Reece Calvert: Soldiers from Battle Group Jacka participate in a company attack on an enemy position. Photo by Private Michael Currie: Australian Army soldiers on patrol at Puckapunyal Training Area, Victoria, during Exercise Jacka Run 2019. Photo by Lieutenant Reece Calvert.

Exercise Talisman Sabre and potential future operations.

Under Plan Beersheba, the Army has created three similarly structured combat brigades that each comprise the main elements of a potent combined-arms team, with combat service support, that can allow the Army to settle in to a manageable three-year 'set, ready, reset' cycle.

Augmenting forces from the reserves are key elements in this structure, which has now developed into Plan Keogh – see page 52 in [CONTACT issue 57](#) for a full explanation.





AIR WARFARE INSTRUCTORS' COURSE

More than 2000 personnel, 100 aircraft and the next generation of Air Force Air Warfare Instructors were tested to the limit during Exercise Diamond Storm in the Northern Territory.

Exercise Diamond Storm is a large-force employment exercise with a focus on the execution of tactical offensive counter-air operations.

The exercise was the final stage of an intensive three-phase Air Warfare Instructor Course that assesses candidates in academic and practical activities, spanning six months.

Exercise Director Group Captain Matthew McCormack said the Diamond series of exercises were designed to enhance the integration of people and systems to facilitate the introduction of fifth-generation capabilities into the Australian Defence Force.

"The course exercises complex war-like scenarios and the students put their newly developed skills into practice and make decisions that will shape the way Air Force fights in the future," Group Captain McCormack said.

He said a strong cadre of personnel capable of integrating warfighting functions across a range of specialisations graduated from the course.

"It has been a very busy month at RAAF Bases Darwin and Tindal as we reach the conclusion of this specialist course that has tested the candidates in a range of high-end warfighting scenarios," Group Captain McCormack said.

"Diamond Storm has seen course members plan and execute offensive counter-air scenarios using



Photos by Corporal Craig Barrett



just about every aircraft in our Air Force, as well as some from the United States Air Force and United States Marine Corps, and a range of specialist ground-based enablers and Royal Air Force capabilities."

The types of US aircraft participating in the exercise included US Air Force F-15C Eagle and B-52 Stratofortress bomber, and US Marine Corp MV-22 Osprey and AH-1Z Viper.

RAAF aircraft participating included F/A-18A/B Hornets, F/A-18F Super Hornets, EA-18G Growler, Hawk 127, AP-3C Orion, P-8A Poseidon, C-17A Globemaster, KC-30A Multi-Role Tanker Transport, E-7A Wedgetail and C-130J Hercules.

Supporting the aircraft were a range of ground-based surveillance and reconnaissance, air-warfare centre and combat-support group capabilities and personnel.

The Air Warfare Instructor Course began at RAAF Base Pearce in January, with Exercise Diamond Seas, a maritime-focused scenario with Navy and

Army elements, before moving into Diamond Shield, a defensive counter-air exercise conducted from RAAF Bases Amberley and Williamtown.

"As instructors, the course graduates will be required to operate in a range of environments, cooperating with other Defence units and international forces to accomplish their objectives," Group Captain McCormack said.

"They represent the next generation of tactical and integrated warfare leaders across the air-combat spectrum."

Exercise Diamond Storm formally concludes with the return of all personnel and aircraft to RAAF Base Williamtown on 31 May for a 'Dawn Strike' off the coast of Newcastle.

Dawn Strike saw fast-jet aircraft and 'big wing' aircraft land at Williamtown before graduates received their patches during an official ceremony.

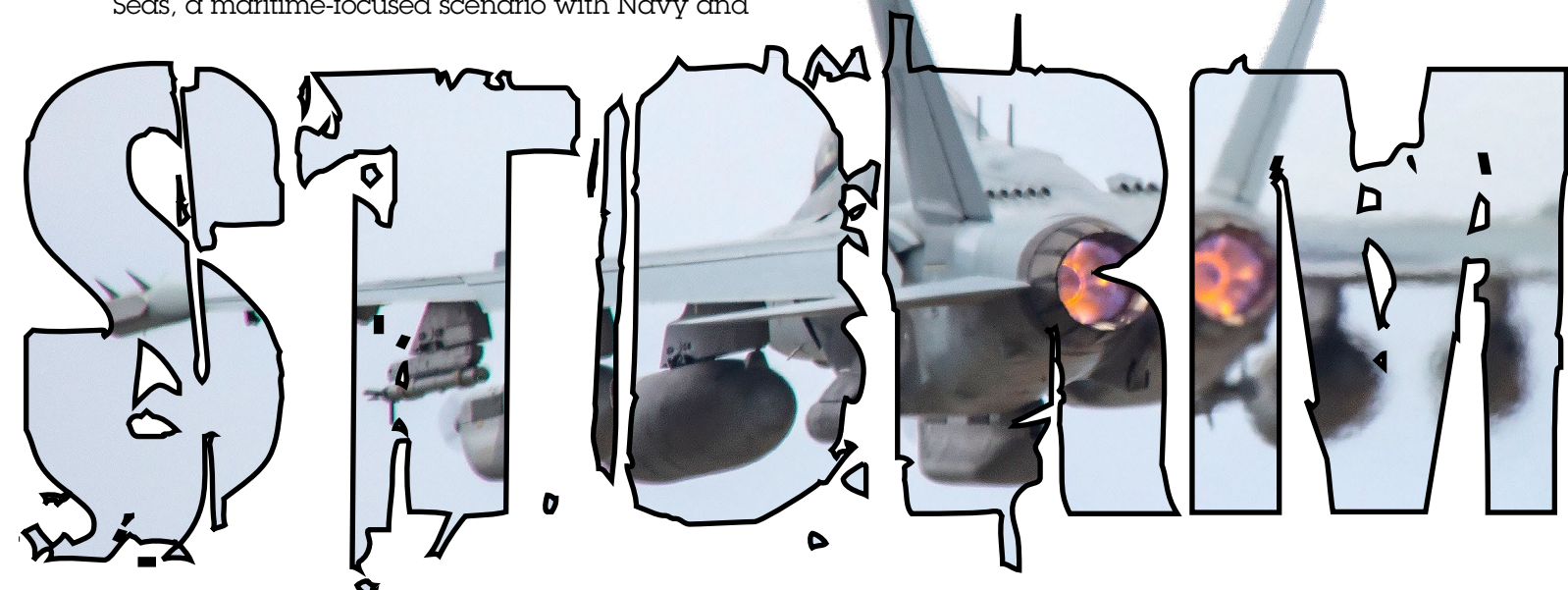




Photo by Corporal Craig Barrett

No. 36 Squadron's C-17A Globemaster III played a key role in the early stages of Exercise Diamond Storm in the Northern Territory by facilitating training integration of Air Mobility Group assets for the Air Warfare Instructor Course (AWIC).

C-17A 212 flew into the austere environment of Nackeroo Field military airstrip at Bradshaw Field Training Area on 8 May for exercise tasking, as well as to provide much-needed resupply and support to deployed personnel in the remote area.

C-17A Detachment Commander Flight Lieutenant Tim Smith said this was not a typical role for the C-17A when flying from the aircraft's home base at RAAF Base Amberley.

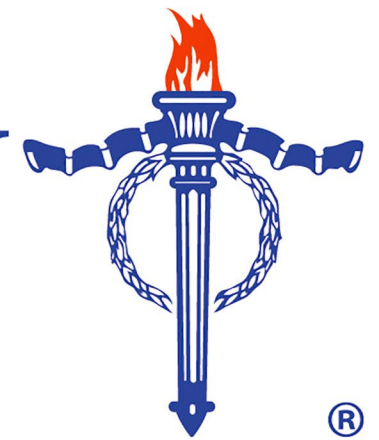
"It's a different day in the office to land the massive C-17 at Bradshaw, and we will be doing this a lot throughout the exercise, to deliver necessary logistics and personnel, and to achieve exercise objectives," Flight Lieutenant Smith said.

"We are landing on dirt strips that airfield engineers from No. 65 Squadron have prepared for us, at 3500 feet in length, it is right on the minimum prescribed for C-17A operations.

"We rarely get to land on dirt runways and, as a robust and versatile airlifter, the C-17 is capable of doing this without too much effort.

"It's unreal to land such a big aircraft in Top End's red dirt."

LEGACY



Since 1923, Legacy has kept their promise to Australian veterans and taken care of the families of those who have died or given their health as a result of their service



Show your support and donate at:
legacy.com.au

LIVE-FIRE RANGE IN A BOX



Beware the ViPIR

Words Sergeant Dave Morley
Pics Sergeant Max Bree
ARMY Newspaper

How cool would it be to have a live-fire range rock up at your unit on the back of a semi-trailer?

Soldiers at Russell Offices in Canberra experienced just that when the Video Positive Identification Range (ViPIR) turned up for an evaluation from May 13 to 24.

ViPIR OIC Sergeant Robert Brooks, a reservist on loan from Adelaide University Regiment and currently working for Army Land Simulation Program, said the range used a high-definition video projection system with real weapons and live ammunition.

"This range allows soldiers to be immersed in a training environment where they're using in-service weapons and a new lead-free frangible close target round in highly realistic scenarios," Sergeant Brooks said.

"This assists in building a 'pre-combat veteran' with the ability to use live fire in real-life HD environment video-based scenarios played by actors on the screen who react to the soldier's actions – or inaction.

"It also allows our soldiers to build positive combat behaviours, so when they are faced with similar situations on operations, they have the experience to draw on to enhance their likelihood of a successful outcome."

Sergeant Brooks said that using this type of equipment aligned with the Small-Team Integrated Combat Training System experiential learning model, which is based on learning through doing.

"They're firing a number of rounds to target effect – not, 'During this serial you will fire two rounds'."

"They're firing until they see a target effect on the screen," he said.

OPPOSITE: Australian Army WO2 Adam Krongold fires on a target during a training scenario in the Video Positive Identification Range (ViPIR) evaluation at Russell Offices, Canberra.

RIGHT: Sergeant Robert Brooks (right) explains combat shooting techniques to Warrant Officers Class Two Brett Postlethwaite and Adam Krongold in the Video Positive Identification Range (ViPIR) – also known as a 'live-fire range in a box' at Russell Offices, Canberra.



"If the enemy combatant on the screen is wearing body armour, we can force the soldier to make a cognitive decision to fire lower or higher, or even punch through the body armour.

"As the box is limited to one or two firers at a time, it allows the learning experience and the feedback loop to be individualised to each firer."

Sergeant Brooks said the beauty of the ViPIR was its simplicity and the concept of "turn up and shoot".

"It significantly reduces the administrative overheads of live-fire training.

"Range operators hold all the ammunition, so when the OIC arrives in the morning he gets a

quick brief from the operator, signs for the range, briefs his soldiers and can start shooting within 10 minutes," he said.

"There's no need for signing out ammunition and returning unexpended rounds or any of those time-consuming activities that take time away from soldiers actually training."

He said the system's technology also allowed users to upload video footage to create their own scenarios.

"Imagine we're going into a new AO and the first patrols take video footage that could be sent back to Australia and turned into scenarios for the next

ViPIR at Russell Offices.



ViPIR – a go-anywhere live-fire rifle range on the back of a truck!

rotation to train on as part of their MREs [mission rehearsal exercises].

"Soldiers would get to undertake live training in [virtually] the same environment they'll be operating in before they even set foot in country.

"Additionally, having a ViPIR in the forward operating base for soldiers to train during their downtime would be beneficial."

Australian Target Systems are providing this product, also known as the Live Fire Range in a Box (LFRiB).

One soldier who experienced the system in Canberra was WO2 Brett Postlethwaite.

He fired multiple rounds into a terrorist who has emerged from around a corner with an AK – and neutralised the threat before he got a shot off.

After the ViPIR scenario ended, WO2 Postlethwaite said he didn't know how they did it, but it was pretty clever the way they set up the video to do what it did in response to live actions.

"If you're successful in prosecuting an attack on the target it will go down. If not, it will keep shooting at you," WO2 Postlethwaite said.

"Diggers would benefit from using this range because it augments Army's ranges and WTSS with particular scenarios.

"The beauty about this is you can park it anywhere and just get the shooting in. You don't need a live-fire template and it can also reduce waiting times for soldiers.

"It's got a lot of potential to augment our standard practices and prevent skills fade.

"We spend a lot of time training our soldiers on advanced shooting techniques but little time following those up.

"A soldier may attend an advanced shooting course but then not shoot again for the rest of the year, depending on their schedule.

"This will help keep skills in place."

- ViPIR will be at the School of Infantry in Singleton from June 3 to 6, then Enoggera Barracks in Brisbane from June 10 to 14, followed by Townsville (via Darwin for a couple of weeks) for a 12-month evaluation.



ABOVE: Rad Acanski from the company ATS Ranges and Training, prepares the system ahead of a shoot.

BELOW: WO2s Brett Postlethwaite and Adam Krongold, supervised by Sergeant Robert Brooks, prepare to shoot.



CONTACT

DFSW Club

DIRECT FUNDING SUPPORTERS OF OUR WORK

Our most valuable Patreon members

Aaron Bonnett	Waroonra	WA
Raymond Yeow	Sydney	NSW
David Tatler	Ermington	NSW
Warren Stickens	Wentworthville	NSW
George Hulse	St Lucia	QLD
Mark James	Leongatha	VIC
Peter Leed	Wy Yung	VIC
Owen Glover	Little River	VIC
Len Thompson	Cotton Tree	QLD
Mike Gillen	Seaford Meadows	SA
Joshua Elmer	Cranbourne	VIC
Noel Wright	Helensvale	VIC
Greg Holmes	Sadadeen	NT
Peter Thomas	Torquay	VIC
Amba Beedie	St Kilda South	VIC
Rod Charman	Mildura	VIC
Dennis Mitchell	Greenleigh	NSW
Mike Ryan	Hawthorn East	VIC
David Read	Regents Park	QLD

There are 16 other Patreon members, whose support is also very, very welcome.

The amazing **CONTACT** fans listed on this page are **Direct Funding Supporters** of our **Work**, financially supporting what we do – not because they have to, but simply because they want to.

With their support, **CONTACT** can continue to deliver what we already deliver – plus a few extra rewards exclusive to **DFSW Club** members.

Unfortunately, the one big reward we wanted to deliver – printing **CONTACT** again – did not happen, because the level of support required just didn't materialise.

Find out how you can join the **DFSW Club**, and all its benefits, at

patreon.com/contactmagazine

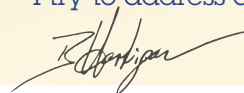
Members choose cover

The cover of this issue of **CONTACT** was chosen by our **DFSW Club** members, given a chance to vote for either of the two different versions here – and the winner was almost unanimous.

Personally, I liked them both – I wouldn't have designed them (or risked the consequences ;-)) if I didn't.

But giving the last word to **DFSW** members was just a bit of fun, and a way for me to offer members a chance to participate and influence the magazine's design.

God knows they get very little extra value for their **Direct Funding Support** of our **Work** – a fact that worries me, and that I try to address as often and as best I can.



Option 1 left or option 2 above – which would you have chosen?

Our most appreciated PayPal members

Christopher Kennedy	Brookvale	NSW
Robert Rowland	Yarra Glen	VIC
Ann Hallam	Toowoomba	QLD
Elena Gray	Prahran	VIC
Colleen Crabb	Uranan	VIC
John Winter	Springwood	QLD
Stephen Dale	Blaxland	NSW
Patrick Kavanagh	Stanwell	QLD
Mark Johnson	St Marys	NSW
William McIver	Sellicks Beach	SA
Luke Norman	Kuraby	QLD
Adrianus Voormeulen	Charlestown	NSW
John van der Pol	Shaller Park	QLD
Neil Hammett	Diamond Creek	VIC
Terry Irons	Unanderra	NSW

Thank you all very much

for your support



What is DFSW Club?

While **DFSW** is an Army acronym, we hope our Navy and RAAF fans will forgive us for moulding it to our needs too – **Direct Funding Supporters** of our **Work**.

Membership of the **DFSW Club** is completely voluntary and, while it does have some perks, **CONTACT** would definitely seem to be getting way more out of this relationship than members are – and we hope to redress that imbalance as time goes by.

Joining the **DFSW Club** can only be done via [Patreon](https://patreon.com/contactmagazine), an American platform designed to help fans support 'creatives'.

We tried running a 'subscription' model via [PayPal](https://www.paypal.com) too – but this didn't work for purely technical/software reasons. Anyone who 'subscribed' via [PayPal](https://www.paypal.com) will still receive the membership benefits we initially promised – except, of course, newly printed magazines.

We are so grateful to our amazing supporters who joined our **DFSW Club** in the hope that we would print **CONTACT** again – and gobsmacked that so few of them left after we announced the decision not to proceed with that plan.

We thank all our past and present members most sincerely for your ongoing support –and if you would like to join them, please check out our [Patreon](https://patreon.com/contactmagazine) page, [here](#).



JUST SOLDIERS

BY MAJOR DARRYL KELLY

Model Soldier

CORPORAL WILLIAM HERMANN 'BILLER' ZORNIG 47TH BATTALION

The young soldier lay on the stretcher, the white flag fluttering above him. As the Diggers hurried across the broken ground, they knew that at any time the German gunners could open up on them and they'd be done for.

The young cadet was as keen as they come. His uniform was always immaculate, his leatherwork gleamed with a dull shine and he carried out his drills with commitment and purpose. He was a focused lad and that focus had one purpose, to do his bit in the defence of his country.

In the years preceding the onset of the First World War, thousands of young Australian males signed up for compulsory military cadet training. Willie Zornig was one of those lads, giving four years of devoted service.¹ This was followed by his service in the Citizen Military Forces.¹

Willie Zornig was born in the southern Queensland town of Ipswich.¹ In his early days at school, 'Biller'² as he preferred to be known, showed himself as not only a keen student, but even keener sportsman. He was as comfortable wielding a cricket bat as he was kicking a footy. He was a very competent runner and excelled in the athletic arena.³ He was a winner in everything he did and heaven-help anyone who stood in his way.

After leaving school, Biller took a job with the Queensland Railways as a night officer. The railways seemed to run in the Zornig family with his mother being a station-mistress at Staplyton¹ and brother Harold, who was also a railway employee.

When the train pulled into the station, Biller saw the platform abuzz with excitement. As the train

slowed to a stop he jumped down and forced his way through the crowd to the besieged paperboy. The headlines said it all – War Imminent.

As the young men of Australia poured into the recruiting depots, Biller Zornig contemplated his future. The answer was clear to him – join!

Unfortunately, two facts would affect his initial enlistment. Firstly, the railways were vital to the war effort here at home and thus Biller was in a protected occupation. Secondly, his German heritage may also come into play.

Biller read of the sailing of the first convoy, of Turkey's entry into the war. He learnt the meaning of a new word – ANZAC. He read of the landings at Gallipoli, of the mounting casualties, and of the withdrawal from the rotten flyblown peninsula.

The movement of the AIF to France dominated the headlines, and the decimation of the 5th Australian Division at Fromelles was on everyone's lips, but it was the murder at Pozieres that cut to the bone.

On 5 September 1916, Biller stood, bible in hand, pledging his allegiance to King and Country for service in the Australian Imperial Force.

Allocated as a reinforcement to the 47th Battalion, Biller Zornig showed to all that he'd lost none of his keenness, as again he proved himself to be a model soldier. His mother was there to see him off, as he embarked on the troopship Marathon.⁴ It was

Notes:

1. National Archives of Australia, B2455, WWI Service Records, 2744 Pte W. Zornig

Family notes:

2. AWM 131, Roll of Honour Circular, 1914-1918 War

3. AWM 8, Unit Embarkation Nominal Rolls, 47th Battalion AIF, 1914-1918 War

4. Queenslanders who fought in the Great War 1914-1918 – Owen Wildman

Corporal William Hermann 'Biller' Zornig
47th Battalion

AWM photo H06142



27 October and he was finally bound for the AIF training camp in England.

Biller marched into the 12th Training Battalion, which was based on the barren, windswept Salisbury Plain.

It was here he learnt the finer arts of soldiering. Many of the instructors were men who had been wounded in action. They were tasked with turning the young recruits into strong, competent, well-trained soldiers.

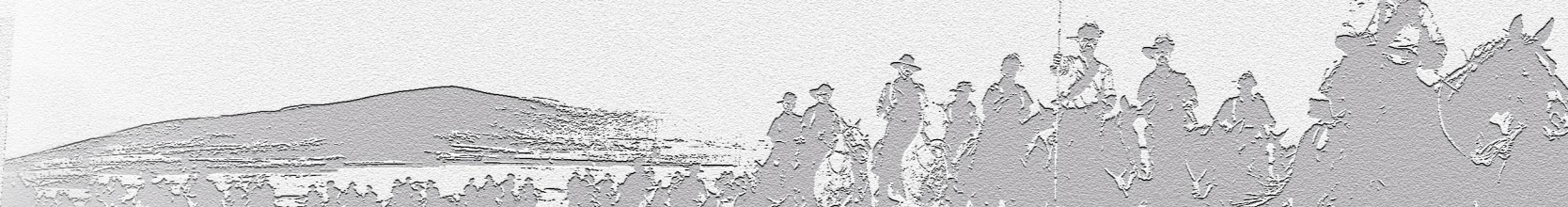
Young Biller hung on every word as his instructors told of life in the trenches. They spoke of the little tricks they learnt, to stay dry and warm. He soon learnt the best way to kill – with a bomb, a rifle, machine gun, bayonet or pistol. But most of all, they spoke of the most important lessons of all – simply how to stay alive.

His deployment to the front suffered a slight set back when Biller was hospitalised with the mumps.¹ He bluffed his way out of the hospital a couple of weeks later and was placed on the next troopship, bound for France.

Marching into the 47th Battalion in April 1917, Biller was allocated to the battalion's A Company.¹ The 47th had been ravaged in the first Battle of Bullecourt, where it lost 127 all ranks.

Private Willie 'Biller' Zornig settled in quickly to the rigours of trench warfare. The older soldiers found him to be dedicated to the job and cool and calm under pressure.

He was only in the unit a scant four months when he was promoted to lance corporal. Biller felt he still had a lot to learn, and requested to revert to the rank of private of his own accord.¹



The Germans identified the beleaguered Australian sector and threw everything they had into the battle

In the ensuing battles across the Menin Road, the NCO casualties in the 47th Battalion continued to rise.

On 20 September 1917, Biller Zornig was again promoted to lance corporal. This time he knew he was ready and gladly accepted the responsibility that went with the stripe.¹

As the weather grew colder, the AIF pushed hard against the German positions around Passchendaele. They hoped to find a weak spot in the line before the onset of the winter rains would force the advance to a halt.

Biller lay in his posie when the sergeant wandered through the trenches.

"Letter for ya mate", the sergeant said, tossing the envelope onto Biller's chest.

As he read the text, Biller sat bolt upright.

"Bloody fool, what's got into him!" he growled.

"What's wrong Biller – ya get conscripted or something?" his mate asked mockingly.

"Nah, it's me bloody brother – he's joined up, and he's in the 41st Battalion."³

"With two of ya's against them, the Hun will give up for sure now!" another chuckled.

Zornig was summoned to the dugout by his company commander.

"Biller, Corporal Bowker was knocked this morning. I want you to take over his section."

"All right, sir," Zornig said nodding his head.

"You better put this up," the officer said, handing over the corporal stripes.¹

"I won't let you down skipper."

"I know you won't mate. You better get going!"

Biller Zornig thrived on the added responsibility. He continually led his section on sorties into no-man's land in an attempt to deny the German patrols access towards the Aussie lines.

His men felt safe and confident under his control. He saw to their every need and was not backward

in delivering not only a pat on the back but, when warranted, a good healthy kick up the bum.

Biller was sent on 'Blighty' leave in February 1918. The break was like a tonic to the young corporal as he travelled the streets of London taking in the sights.¹

He returned to France, but not to the front. He was sent off to a corps NCO school, where he underwent extensive training on the latest weapons and tactics.¹ His training was cut short when the unexpected German offensive caught the allies off guard.

As the French and British lines began to crumble, the ANZAC divisions were rushed up to fill the gaps. The vital ground in the Australian sector was around the beleaguered village of Villers Bretonneux.

The Germans also identified this position and threw everything they had into the battle to try and seize the vital area.

In a seesawing contest – much of it at close quarters – the Anzac's not only held on, but began to push the Germans back.

It was mid May 1918 and the 47th was again in the line. A fierce air battle raged overhead and both the German and Aussie heads stared up as the aerial conflict unfolded. It was like being at the footy with both sides cheering, as first one plane and then another would plummet to earth in flames.

Suddenly, a British plane made a crash landing in the middle of no-man's land. As the airman struggled to get out of the cockpit, the Germans opened fire on him. Immediately, Biller launched himself out of the trench line. Weaving his way from shell hole to shell hole, the battalion provided him with covering fire.

He reached the crumpled fuselage and, as he climbed up onto the lower wing, two German machineguns opened up. Bullets slammed into



Battle of Menin Road – Australian wounded on the Menin Road, near Birr Cross Road on 20 September 1917. By Frank Hurley. National Library of Australia. File: α479035

Zornig's body, catching him in both legs and the stomach.

The Aussies retaliated with a huge volume of fire. Sergeant Fitzgerald of the 47th Battalion tied a white rag to a rifle and raised it above the parapet.

Slowly the fire abated and Fitzgerald gingerly raised his head above the trench line. He kept the flag aloft as he climbed out of the trench and walked towards the crashed aircraft with some stretcher-bearers.⁵

With every step he was sure the Germans may open up at any time. As they reached the plane they found the badly wounded Zornig, feebly trying to reach the pilot, Captain Smith of the RAF⁵, who was sheltering behind the battered fuselage.

"How are you doing Biller?" Fitzgerald asked, as he knelt beside the wounded soldier.

The stretcher bearers loaded the two men onto the stretchers and began to carry them back towards the safety of their own lines.

With the wounded safely below ground, Sergeant Fitzgerald turned back towards the German trenches and gave them a wave and then jumped into the safety of the trench.

The stretcher bearers now went to work, dressing the wounds of the would-be rescuer and Captain Smith.

As they prepared to rush him back to the Regimental Aid Post, one of the bearers looked down at the corporal's face, then looked up at his companion and said, "There's no need to hurry now mate!"

William Biller Zornig now lays at rest in the Adelaide War Cemetery, on the outskirts of Villiers Brettoneaux. Thanks to his selfless efforts, the British pilot survived.

IF YOU ENJOY THIS GREAT FREE E-MAGAZINE PLEASE

TELL YOUR

FRIENDS

TO SUBSCRIBE FREE VIA
AUSSIECOMBAT.COM

... AND WE'LL SEND THEM THESE
TWO FREE VIEWEE TWOEE-SIZED ADF
WEAPONS GUIDES BY RETURN EMAIL



If you haven't got a copy of both our free viewee-twoee-sized "Weapons of the ADF" printable .pdfs yet, you can download them free from – www.contactairlandandsea.com/2016/02/03/viewee-twoee/



ATTENTION ADVERTISERS: Q Store is a FREE bonus editorial opportunity open to all 'current advertisers' to highlight individual products in Australia's best boots-on-the-ground military magazine. For details, email editor@militarycontact.com

TACTICAL CARABINERS

Anyone in the climbing or camping game knows Austrian manufacturer Austri-Alpin for their legendary Cobra™ Buckle.

Well, now you can get the same superior quality in their line of tactical climbing equipment.

Starting with a small accessory carabiner for use with light items, the available range then goes to two climbing-rated carabiners – Ovalo in traditional oval shape and the asymmetric-shaped Prium ID.

Both the Ovalo and Prium ID have three-way auto-locking gates for superior safety and security and all the carabiners come in non-reflective black.

Prium ID is a cutting-edge carabiner, designed so that you can fully grasp it like a handle and use it to assist carrying loads or pulling ropes that have no easy way to hold them.

Each Prium ID comes with an individual laser-etched serial number so you can keep track of your kit.

Distributed in Australia by [Premier Defence Agencies](#) or check [here](#) to find your nearest retailer.



HERITAGE FRAMES

These hand-made sets feature a hand-crafted 180mm NAKED ARMY cold-cast bronze figurine with a black 15x10cm wooden photo frame, on a contemporary-design real-wooden base. Subjects range from WWI to modern figurines.

Ideal to display photographs of your loved ones or serving family members.

The photo frame can be positioned upright or horizontally to cater for different format photographs.

Simple self-assembly required.

Like all our NAKED ARMY products, these figurines are carefully researched and created using traditional sculpting techniques, and quality materials.



NAKEDARMY®

GET THEM NOW FROM www.platac.com

MILITARY GRADE SHIELDS

Baker Ballistics continue to innovate their range of multi-hit-capable rifle-rated shields to meet modern threats and operating procedures.

Recently released is their intermediate protection levels of III+ and III++ to the MRAPS series.

A number of ergonomic improvements have also been made, such as a superior floating handle system that absorbs impacts and is user adjustable.

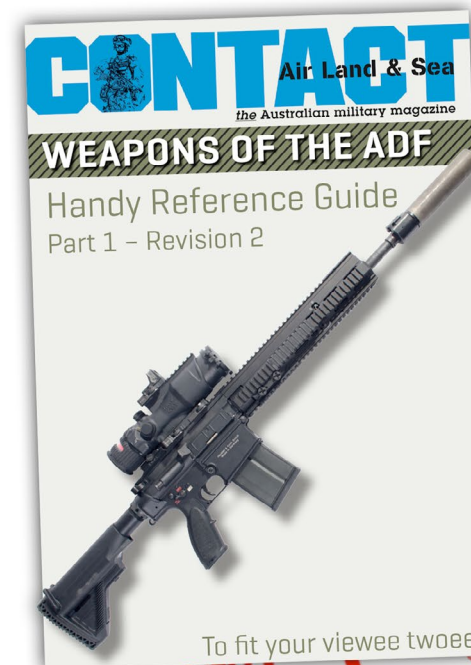
These improvements coupled with Baker's Quick Don shoulder support system reduce operator fatigue.

MRAPS are in a class of their own in terms of a system designed for active-shooter response, where speed is critical.

MRAPS provide superior capabilities in mobility, enhanced ergonomics and the unique ability to efficiently and accurately deliver firepower using either a primary or secondary weapon, turning a shield from a defensive tool into an offensive tool.

View a recent live-fire test on the MRAPS Level IV [here](#) and full product range [here](#).

Baker Ballistics are used by a number of Australian agencies and are supplied exclusively in Australia by [360 Defence](#).



Order your next Viewee Twoee – pre-loaded –



...by CONTACT

CONTACT

AIR LAND & SEA

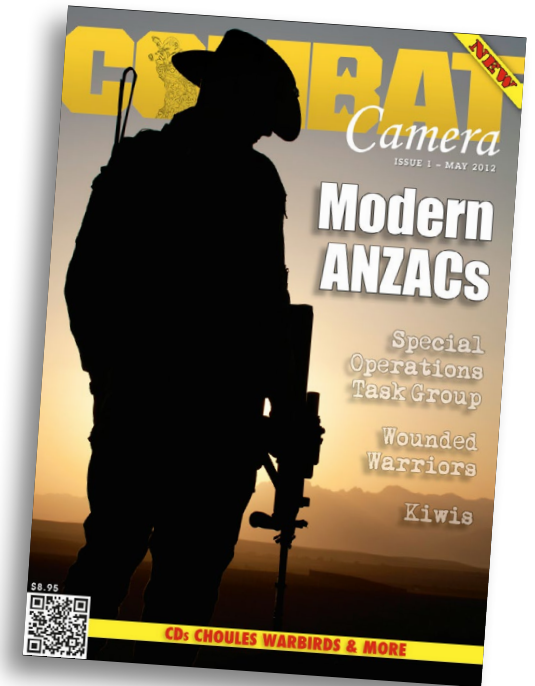
THE AUSTRALIAN MILITARY MAGAZINE



ALL PRINTED
MAGAZINES
\$8 EACH
or buy in bulk to save \$\$\$



This 'Infantry Special Issue' was produced to mark the 60th Anniversary of the Royal Australian Infantry Corps.



COMBAT Camera Issue 01 is available as a print magazine.

That's 42 paper-based magazines to collect and treasure!!!



MAIL INCLUDED



Cadet Sergeant Mark Hargreaves is congratulated after his first solo powered flight by EFTS Head of Operations Squadron Leader Gary Presneill. Photo by Squadron Leader (AAFC) Scott Wiggins.

Historic first flights

During the April school holidays, when thousands of Australia's teens were playing video games or hanging out at the mall, 10 Australian Air Force Cadets took to the skies in the AAFC's new Diamond DA40 NG training aircraft – seven of them achieving solo status.

The first to go solo, on 16 April, was Cadet Sergeant Mark Hargreaves of No 402 Squadron at Watsonia, from No 4 Wing (Victoria).

Cadet Sergeant Hargreaves, who has always wanted to be a pilot in the RAAF and is on a very good path to achieve his goal, said his first solo flight felt very similar to a flight with an instructor on board, except there was no-one watching his every move.

"I had to make all the decisions by myself, Cadet Sergeant Hargreaves said.

"When I landed the plane and had taxied it back to the parking spot, I looked across and saw all my coursemates, staff and RAAF officers on the porch cheering me on as I opened the canopy.

"That's something I will never forget."

Cadet Sergeant Hargreaves was followed two days later by fellow Victorian, Leading Cadet

Luke Gould from No 403 Squadron (Beaconsfield) and Cadet Corporal Brianna Haunold of No 710 Squadron (Bunbury), who was the first cadet from No 7 Wing (Western Australia) to go solo.

The first cadet from No 6 Wing (South Australia) to go solo was Cadet Corporal Max Ramm, from No 609 Squadron (Warradale Barracks).

Then Cadet Warrant Officer Artyom Keddie from No 507 Squadron (Devonport) was the first cadet from 5 Wing (Tasmania) to achieve the memorable personal milestone.

They were followed, also on 18 April, by Cadet Sergeant Lachlan Davis of No 428 Squadron (Newtown) and Cadet Corporal Kiera Galan of No 429 Squadron (Queenscliff).

Course coordinator Squadron Leader (AAFC) Scott Wiggins said, "We heartily congratulate each one of them on achieving this milestone in their careers".

"The other three who didn't have the chance to go solo will have further opportunities with continuation flying training, as they will remain part of the program for up to 12 months," Squadron Leader (AAFC) Wiggins said.

Special air mail

A C-17A Globemaster aircraft from No. 36 Sqn loads the first Diamond DA40 NG from Linz in Austria for delivery to Avalon Airport in Victoria, to be showcased by the Australian Air Force Cadets (AAFC) at the Australian International Airshow 2019.

A RAAF C-17 Globemaster III from No. 36 Squadron was dispatched to Europe in January to fetch the first of eight new fixed-wing aircraft for the Australian Air Force Cadets.

The special air-freight delivery was organised so that the AAFC could showcase their new equipment at the Australian International Airshow – and, no doubt, so that Minister for Defence Personnel Darren Chester had a live aircraft on hand to announce the lease arrangement at Avalon.

Eight Diamond DA40 NG light aircraft have been leased for exclusive use of the AAFC for the next 10 years.

DA40 NG features the latest in avionics and a turbocharged piston engine, giving cadets the opportunity to learn on an aerodynamically advanced aircraft with contemporary navigation and flight-control systems.

Another seven Diamond DA40 NG aircraft are expected to be delivered to Australia [presumably by sea?] before the end of this year.

The aircraft will be based at RAAF Base Amberley in Queensland, RAAF Base Richmond in NSW and RAAF Base Point Cook in Victoria, and regularly deployed to regional areas on weekends and during school holiday periods.

NQ Army Cadets Anzac salute

The normally rowdy Townsville football crowd fell silent recently as young Australian Army Cadet George Abednego read the Ode before the North Queensland Cowboys Anzac-tribute match on 3 May 2019.

The event featured an Australian and New Zealand National Flag ceremony conducted by Australian Army Cadets from 151 Army Cadet Unit based at NRL Cowboys House.

Respect in many forms was on display – for those who have served and in those who proudly

continue to wear the uniform as part of a ground-breaking initiative.

The Australian Army Cadets and NRL Cowboys House are institutions highly respected in the north-Queensland community as having a positive influence on young people's lives.

The successful flag ceremony was the beginning of a memorable evening for the appreciative crowd – and the cadets – with the Cowboys overcoming a tenacious Titans team 28-14.



Army Cadet George Abednego (above) and his colleagues from 151 Army Cadet Unit.





DOWNRANGE TOMAHAWK

Breaching Tool

AVAILABLE AT  PLATATAC