

**COMBAT BOOTS**

**GIVEAWAY**

SEE  
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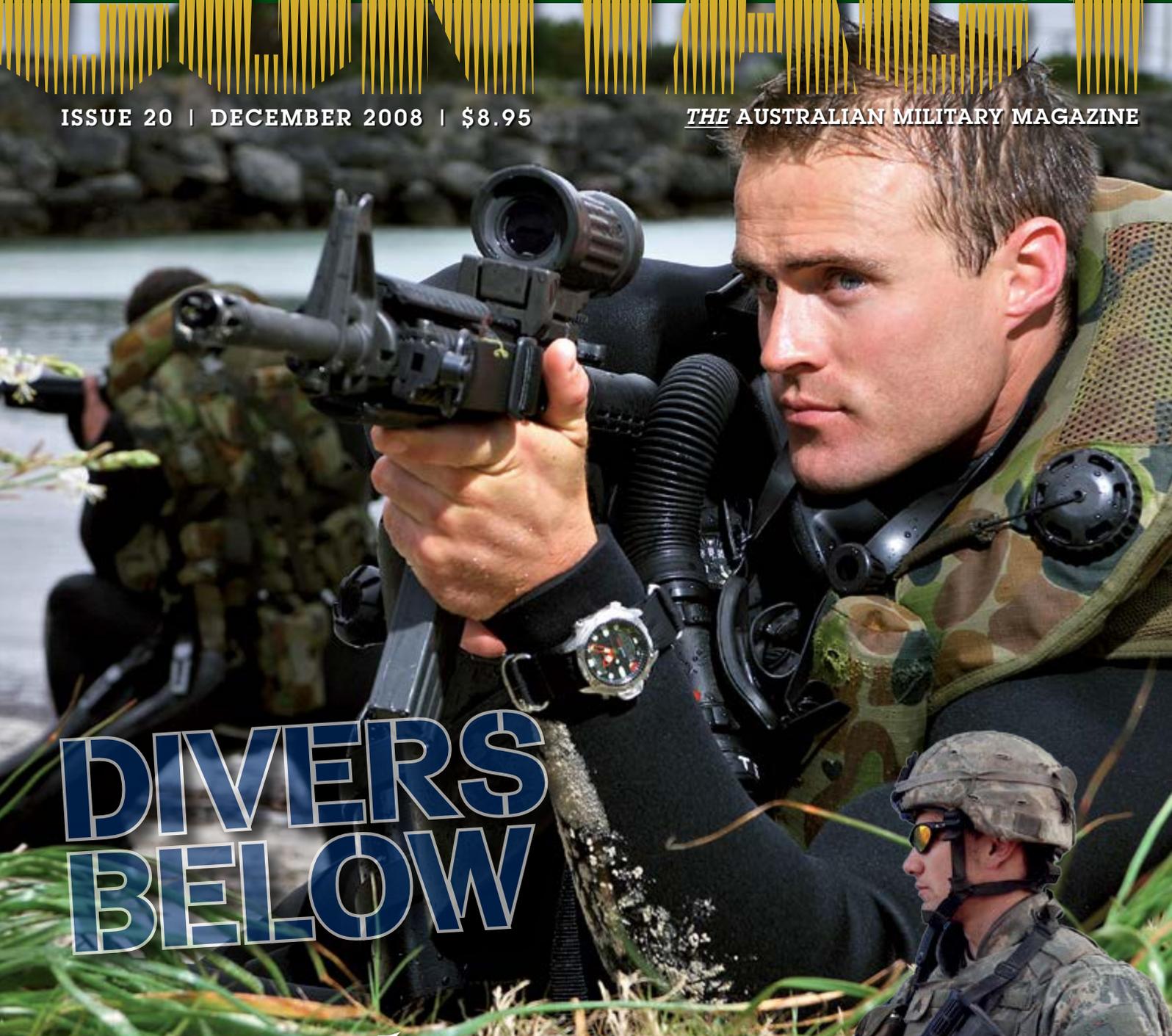


# COMBAT

**AIR LAND & SEA**

ISSUE 20 | DECEMBER 2008 | \$8.95

*THE AUSTRALIAN MILITARY MAGAZINE*



## DIVERS BELOW



## Year of the INFANTRY

**FOLLY OF  
UP-ARMOUR**

**AVIATION  
AVALON,  
AMBERLEY  
AND MORE**

## more than TAKING the HEAT

There is one job like no other, a job requiring employees to be educators, counsellors, safety advisers, community workers, public speakers and instructors as well as rescuers.

The job is tough – the job is being a firefighter.

The responsibilities of firefighters are diverse – firefighters don't just fight fires.

A main emphasis of the job is fire prevention.

In addition, firefighters conduct rescue operations including those associated with motor vehicle accidents.

Disaster response is also an integral part of the job.

Furthermore, firefighters are required to undertake ongoing training, skill maintenance and study towards career progression.



## as a sure-FIRE career SAVING lives

Since joining the Queensland Fire and Rescue Service in January 1999, Firefighter Jodie Lynch has experienced more in her career than most people experience in their entire lifetime.

But as tough as Jodie's job can be, she says if she'd known how rewarding being a firefighter is, she would have joined much sooner."

But as tough as Jodie's job can be, she says if she'd known how rewarding being a firefighter is, she would have joined the Queensland Fire and Rescue Service much sooner.

"No situation is ever the same, which is exciting as well as challenging," says Jodie.

"The diversity of the job is fantastic. The job ranges from teaching kids about safety to cutting people out of motor vehicles when there has been an accident.

"The ongoing training and the opportunity for career promotions are also good."

Jodie says she enjoys being a part of a team and putting in the hard yards.

"When I first started out I was like a wound up spring.

"They said my eyes were like dinner plates when I was called out to my first incident."

Even though being a fire can be thrilling, Jodie stresses there are downsides to her job.

"Seeing people lose everything they own in a house fire is hard.

"There are also some really dreadful accidents.

"You just have to remember that you are there to help."



## initial requirements FOR application

Before an applicant can apply for a position as a firefighter with Queensland Fire and Rescue Service, the following requirements must be met and evidence provided:

- > One year C class manual driver's licence or manual Medium Rigid Vehicle (MRV) licence;
- > Australian resident status;
- > Current Senior First Aid Certificate;
- > Successful completion of year 12 or year 12 equivalent; and
- > Minimum two years full time general work history or equivalent.

Once an initial application has been accepted, applicants are asked to undertake a number of assessments – Aptitude Assessment, Characteristics Assessment, Fitness Assessment and Physical Assessment.

In the final stage of the recruitment process, applicants must provide evidence of the following:

- > Current Advance Resuscitation Certificate;
- > Current Manual Medium Rigid Vehicle (MRV) licence; and
- > Final medical assessment.

For a full explanation of the requirements visit [www.fire.qld.gov.au/employment](http://www.fire.qld.gov.au/employment).



## firefighter application PROCESS

**Step 1** The applicant obtains an Information Kit from [www.fire.qld.gov.au/employment](http://www.fire.qld.gov.au/employment) or by contacting ph: 131 304 .

**Step 2** The applicant completes and submits the application form with all required certified documents.

**Step 3** A letter is sent to the applicant advising that their application has been accepted. The letter includes assessment information and dates.

**Step 4** Assessments are completed in any order that is convenient. The applicant receives a letter advising of their progress after each assessment.

**Step 5** As vacancies occur, the applicant's entire application is reviewed for shortlisting.

**Step 6** Shortlisted applicants attend interviews and medical assessments.

**Step 7** The most suitable applicants are chosen for further consideration and final checks are undertaken. Applicants also participate in a Clinical Psychological Assessment.

**Step 8** QFRS undertakes final checks – Criminal History Check, confirmation of current Senior First Aid Certificate, certified copy of current manual MRV licence, certified copy of current Advanced Resuscitation Certificate and approval of Clinical Psychological Assessment results.

**Step 9** Successful applicants receive a Letter of Appointment.

**Step 10** Applicants commence employment with QFRS and begin recruit training.

For information regarding firefighter recruitment phone 131 304 or visit [www.fire.qld.gov.au/employment](http://www.fire.qld.gov.au/employment).



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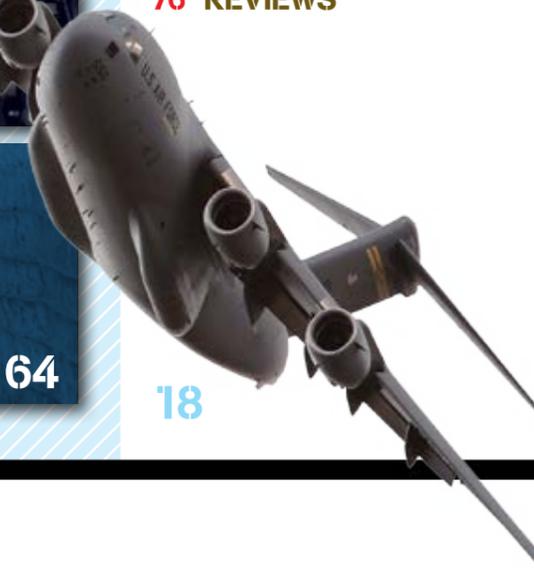
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## CONTACT

AIR, LAND & SEA



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Clearance Divers on TV  
Full story page 52

Pic: PO Damian Pawlenko

#### Year of the Infantry

The folly of an  
AFV-based force  
Full story page 44

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Authors and photographers may submit articles and high-quality photos for consideration for publication, however, the editor accepts no responsibility for any material submitted and does not undertake to publish all submissions. Include a stamped, self-addressed envelope if material is to be returned.

This issue #20 of CONTACT Air Land & Sea, is a landmark. Not only does it mark our fifth birthday, but it also sees us wrap up 'The Year of the Infantry'!

This latter milestone has been a challenge – mainly in a good way. I have learned so much about the Army's front-line troops. So much, in fact, it surprised me how ignorant and relatively unappreciative I was to begin with.

Now that CONTACT's 'Year of the Infantry' draws to a close, I want to assure you all that this will certainly not spell the end of infantry coverage in this magazine. If anything, we will be looking at infantry in a whole new light and with a much deeper sense of respect – because you deserve it.

There is one point I would like to raise in regards to future coverage of the infantry, however – and this applies equally to all front-line troops (and others to some extent). The problem is this – it is increasingly difficult to cover the infantry, artillery, engineers and others as infantry, artillery, engineers etc because it is impossible to tell them apart! I'm specifically talking here about soldiers on operations. Looking at them doesn't help because they all wear the same uniform. Assessing what they are doing isn't any easier, because they all carry weapons, patrol streets and generally muck in together. Defence Public Relations don't help matters either because the captions on the (excellent) photos identify the individuals as belonging to Battle Group X or Combat Team Y. While this may be good for cohesion in the current formation, it prevents (or makes it very difficult) for people like me to focus on a corps or a unit. And in 10, 20 or 100 years from now when the current task force is long since disbanded, historians will have a hell of a time piecing together the unit history of 1RAR or 2/14LHR (QMI) for example.

I am not alone in being concerned about this and many similar and related issues around recording the current history of the ADF. Various aspects of this issue consumed considerable time at the recent Chief of Army's History Conference in Canberra. The CA himself raised it with considerable gravity in his opening address. I know greater minds than mine may be mulling it over right now – and if any of them happen to read this, I'd welcome an opportunity to add my thoughts to yours.

Our soldiers deserve their properly recorded place in the history books.

Looking to the future, we have developed a reader survey (see page 62 or our web site [www.militarycontact.com](http://www.militarycontact.com)) to help us gauge who is reading CONTACT and what you want from it. We need to do this to make sure we are delivering what you want to read and not missing out on something obvious. It is a **CLOSED** for us to know who is reading CONTACT to better target advertisers, who are very important to the continuing success of the magazine.

I ask you most sincerely, please help us with this. In return, we will send you a free copy of CONTACT – any back issue of your choice.

I thank you in anticipation.

Brian Hartigan  
Managing Editor

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**INCOMING**

## SUSTAINED BURST

I got hooked on CONTACT after someone told me I was in it (winning team of the 2008 CA-CTC). What a coincidence that I was reading your magazine (borrowed from my CUO) on the plane on the way to Sydney.

Anyway, my suggestion is a basic rundown of all the active combat units (RAR, Cav, Armour, etc), with info such as their name, location, which vehicles/weapons they operate, and their current deployments. More detail could be given for each, such as structure, but this would stretch the info from a small article, probably to a long one.

Another thing – what happened to Private Nobber? It was always the first thing I read, and it was to great dismay that I read of his demise. I would much rather read about him than a couple of pages of game reviews.

Great mag though!

**Dean, via web-site feedback**

Well done on your win at the Chief of Army's Challenge. That's something you won't forget – probably ever. I know. I still remember my successes (and some of the many failures) on military skills and unit shooting teams – good times.

I quite like your suggestion for a story, except it might be much bigger than you imagine. It strikes me as a good subject for a stand-alone special issue, perhaps! You may be already aware, but I've actually just finished a stand-alone infantry-only special issue to mark the 60<sup>th</sup> Anniversary of the Royal Australian Infantry Corps. Depending how this one pans out will help me decide whether I ever do a special issue again – it wasn't easy. That said, your idea has great merit – I will keep it in mind.

As for poor old Nobber! I was very fond of him myself. I'm sorry to say it, but his time was up for reasons too numerous to mention.

Good luck with the rest of your cadet career and, when you eventually join up to the ADF (?), don't forget to keep notes so you can write stories for CONTACT down the track! – Ed.

I am a big fan of the magazine and enjoy reading it many times over. I am currently preparing myself to enlist with the Australian Army. I am thinking of becoming a combat engineer. I have all the information from the Defence Jobs web site, but I am wondering if you know of any additional information on combat engineering to help me prepare myself for joining and giving me the best chance of getting in to that field? Any other info would be greatly appreciated.

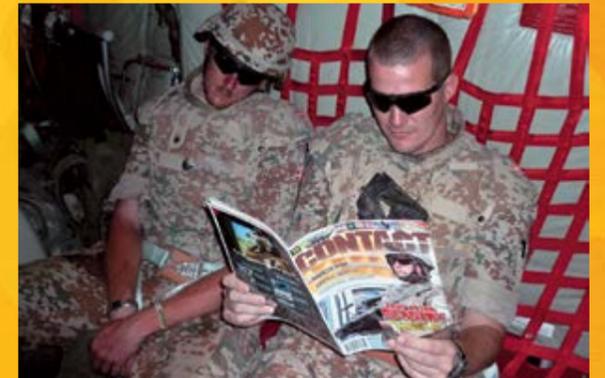
**Phil K, via email**

Sorry to disappoint, but I think you may have already looked in all the places I would start.

Defence Recruiting and the defencejobs web site is obviously the big one. Have you tried a Google search and Wikipedia? They could be helpful. Also, try a search on the War Memorial's site. There may be some definitions and discussions there, plus some links to good books on the subject.

After that, the next thing I would do, as editor of CONTACT, is go to Defence and ask, can I come over and see some engineers in action and write a story about them? I will definitely do that one day but, unfortunately, it probably won't be in time for your immediate needs.

Thanks for being a fan of CONTACT – we could use thousands more like you – Ed.



Lars Olesen, Danish Army, knows a good read when he sees one. He says, "this is me flying from Helmand to Kabul. I'm not sure if my mate was sleeping or trying to read over my shoulder". Lars Olesen contributed articles to CONTACT issue #9 and #10.

## FRIENDLY FIRE

I was browsing issue #8 of CONTACT today, and read a letter to the editor about females in the infantry. The NZ Army has no restrictions on females in any branch of our military.

As a Kiwi serving in the Solomon Islands, we currently have a female Infantry Platoon Commander and several females within our ranks.

In my experience, I have found some people to be fantastic soldiers regardless of gender. Conversely, I have found some extremely poor-quality male soldiers producing more problems than females.

I have no doubt that females possess the ability to function in any role in the army, as long as they meet the physical and psychological requirements.

Problems come when males are unable to treat females the way they would another male.

Whether it be an inability to keep their hormones in check, or the female playing the gender card, most men function differently when women are present.

Most unfortunately, we are unable to kick people out because they have a difficult personality. I believe personality is much more important than gender. Any armed forces should have the right to remove any soldier if they cause more problems than they are worth.

**Avril D, via email**

I would like to say a very big thank you for posting a small yet important piece of information regarding the ADF's new stance on asthmatics wishing to enlist. When I was 18 I tried to enlist and was promptly knocked back due to my condition. However, seven years on, the rules have changed and I am only weeks away from enlistment with the Reserves. If I hadn't seen your magazine in the newsagent last October, issue #15, I may still be wishing that I could join. Instead, now it is going to be a reality and no doubt a life-changing and rewarding experience.

Thank you muchly and keep pumping out that quality magazine.

**Raigan H, via email**

Please keep your letters short and to the point, to fit more in. The Editor reserves the right to abbreviate and otherwise edit letters for any reason, including to make them fit.

Subscribe free at [www.aussiecombat.com](http://www.aussiecombat.com)

# FLASHPOINT DIPLOMACY



Able Seaman Boatswain's Mate Craig Everett fires the saluting gun on HMAS Toowoomba as it enters Pusan Harbour in the Republic of Korea. HMAS Toowoomba was on a goodwill visit to the city before participating in Exercise Bersama Lima – an annual five-power interoperability exercise with Singapore, Malaysia, New Zealand and the United Kingdom. During the military exercise, combat forces will engage in combined and joint defensive operations in a multi-threat limited-conflict scenario. HMAS Toowoomba was joined by HMAS Anzac, two RAN mine hunters HMA Ships Yarra and Norman and the replenishment ship HMAS Sirius. RAAF aircraft including F/A18s, F111s and an Orion maritime surveillance patrol aircraft also participated, with C130s and C17s providing strategic lift and logistics support.

Pic Able Seaman Justin Brown



An Australian-built Bushmaster in Dutch service.

## MORE BUSHMASTERS BOUGHT

Minister for Defence Joel Fitzgibbon announced in October that a contract had been signed with Thales Australia for an additional 293 Bushmaster vehicles, increasing the total number of vehicles being acquired under Land 116 Project Bushmaster Phase 3 to 737.

"The Bushmaster has demonstrated its ability to provide a high level of protection for our soldiers," Mr Fitzgibbon said.

"This protection, coupled with exceptional mobility at speed and in desert conditions, provides a capability that is unparalleled by any comparable vehicle in operation in the world."

First deployed to the Middle East in 2005, the Bushmaster has acquitted itself well in Iraq and Afghanistan, proving to be a highly relevant and capable vehicle that has captured the attention of coalition armed forces.

Bushmaster has been exported to the Netherlands and the UK, while a number of other countries have also shown interest in acquiring it.

## OLD WAR HORSE TURNS 50

RAAF members and enthusiasts celebrated 50 years of outstanding achievements by its enduring work horse – the C-130 Hercules – in November.

Chief of Air Force, Air Marshal Mark Binskin said various models of Hercules aircraft have formed the backbone of many ADF operations during the past 50 years.

"The Hercules have provided combat air lift capability, including tactical transport of troops and cargo as well as special forces insertion, parachuting and air drops," Air Marshal Binskin said.

"In marking 50 years of C-130 service, we recognise the dedication of the thousands of air crew, ground and support personnel and contractors who have worked hard to fly and maintain the Hercules in Australia and in deployed locations around the world.

"In recent years, our C-130 Hercules have seen more active duty than any other aircraft in the RAAF.

"This service has been widely appreciated across the ADF.

"Today, three RAAF Hercules are based in the Middle East, and continue to provide vital air-lift support to Australian and Coalition forces."

Some of the more memorable achievements for Hercules include Vietnam War service, emergency response to Cyclone Tracy, the Katherine floods, the Boxing Day tsunami and the Bali bombings.

The C-130 Hercules began service with the RAAF in 1958, with the arrival of 12 C-130 A models. The success of this acquisition was followed in 1966 with purchase of a further 12 C-130 E models.

Twelve C-130 H models arrived in 1978 to replace the 20-year-old A model and the latest version – the C-130 J – replaced the E model in 1999.

RAAF currently operates a fleet of 24 C-130s, comprising H and J models.

While the C-130 has undergone several modifications over the past 50 years, its fuselage shape has largely remained unchanged.



## JTF BLOWS KIRIBATI

Australia deployed a small military joint task force to the Pacific-island nation of Kiribati in August to commence Operation Kiribati Assist, an operation to help dispose of WWII unexploded ordnance (UXO) from locations throughout the island nation.

Joint Task Force (JTF) 637 was tasked to dispose of UXO identified during a 2007 reconnaissance of the islands and scope any future disposal requirements and training opportunities for the Kiribati Police Service.

JTF 637 comprised 22 people, including RAN clearance divers, army and RAAF explosive ordnance disposal (EOD) teams and medics.

The 33 islands of Kiribati are scattered across 3.5 million square kilometres of the central Pacific and were the site for the Battle of Tarawa in November 1943. Most UXO encountered in Kiribati are remnants from this conflict and include artillery projectiles, aerial bombs, rockets, mortars and mines.



## REST IN PEACE

Australia and Britain have agreed on a site diagonally opposite the village church at Fromelles to be the final resting place for the WWI soldiers found at Pheasant Wood earlier this year. The site overlooks the battlefield to the west and is within line of sight of the original burial ground. The soldiers will be exhumed and re-interred in individual graves. Work will commence in mid 2009.

## JLTV BUY-IN

Defence Minister Joel Fitzgibbon has announced first-pass approval for a fleet of protected light mobility vehicles.

He said Australia intends to participate in the technology demonstration phase of the US Joint Light Tactical Vehicle (JLTV) Program, which is expected to replace over 60,000 vehicles in the US Army and Marine Corps from 2012 onwards.

"Through the JLTV Program, Australia and the US will be devoting considerable resources to developing a light mobility vehicle with the best possible protection for our troops on operations," Mr Fitzgibbon said.

A final decision on whether Australia will acquire the JLTV will be made once the vehicles have passed key development and testing milestones.

## MORE M113

Minister for Defence Joel Fitzgibbon has announced approval of a \$220 million project to upgrade 81 additional M113 armoured personnel carriers (APC) under Project LAND 106, which is already delivering 350 upgraded vehicles.

"These high-priority upgrades will provide improved protection, mobility and firepower to Australian soldiers, allowing missions to be carried out more efficiently, safely and effectively," Mr Fitzgibbon said.

Enhancements to the M113

include add-on armour, spill liners, new turret and weapon, drive train and suspension upgrades and more internal space.

BAE Systems will open two additional upgrade facilities to ensure delivery commitments are met.

## NARY SOV DELIVERED

On a recent visit to the SASR in WA, Minister for Defence Joel Fitzgibbon inspected the unit's first Nary Special Operations Vehicles (SOV) – named in honour of Warrant Officer Class Two David Nary who was killed in training in the Middle East in 2005.

"As a key exponent and developer of the Long Range Patrol Vehicle capability, naming this vehicle after



Warrant Officer Nary is a fitting honour," Mr Fitzgibbon said.

Nary SOVs are built by UK-based Supacat Limited and delivered by DMO under Project Redfin.

## ARMY MERCS

Mercedes-Benz has won a \$350 million contract to supply 1200 new G-Wagons to the ADF.

Defence Minister Joel Fitzgibbon said the all terrain vehicle came highly endorsed,

with around 60,000 units in use by defence forces around the world.

"Today's contract is an important milestone for the \$4.6 billion LAND 121 Project Overlander – the Army's largest project ever," he said.

Land 121 will deliver a fleet of 7000 vehicles plus supporting modules and trailers over the next 10 years.

See page 56 for more details on G-Wagon.

## KOREAN SERVICE RECOGNISED

Parliamentary Secretary for Defence Support Mike Kelly has announced that Royal Assent is being sought to strike a new medal to recognise service in post-armistice Korea – 28 July 1953 to 19 April 1956.

"The service these veterans rendered was unique and warrants the recognition they are being offered today," Dr Kelly said.

"The conditions under which these people served were at least as arduous and dangerous as many subsequent operations which have attracted similar recognition, and 18 members lost their lives while engaged in this service."

Eligible veterans will also receive the Returned from Active Service Badge.

## SYDNEY COIN

Minister for Superannuation and Corporate Law Nick Sherry has officially launched a commemorative coin issued by The Perth Mint to mark

the discovery of HMAS Sydney II after a mystifying 67-year wait.

"The enormous historical and cultural significance of HMAS Sydney II meant the discovery warranted a special tribute in the form of a commemorative coin," Senator Sherry said.

"This is a project that The Perth Mint has been exceptionally proud to undertake."

Just 7500 coins will be struck by the mint. Of these, 5000 will be released in individual presentation packaging accompanied by a numbered Certificate of Authenticity, with the remainder reserved for a premium coin, medallion and badge set.

Call The Perth Mint on 1800 098 817 or order on-line at [www.perthmint.com.au](http://www.perthmint.com.au)

A report on the search for HMAS Sydney II can be downloaded from [www.findingsydney.com](http://www.findingsydney.com)



Ted Graham, chairman of the Finding Sydney Foundation, displays a HMAS Sydney II coin.





## BAND OF BROTHERS

Leading Seaman Ben Adams, Recruit Luke Adams, Leading Seaman Anthony Adams and Able Seaman Derek Adams celebrate entering the history books after becoming the first family in approximately 50 years to have four brothers enlisted in the Royal Australian Navy at the same time.



President Jose Ramos-Horta presents Private Nathaniel Montalla with the Australian Service Medal at Timor Lodge, Dili.

## PRESIDENT PRESENTS MEDALS

President of East Timor Jose Ramos-Horta was the official guest of honour at a farewell parade for the last contingent of East-Timor Battle Group 4 (ETBG 4) troops before their return to Australia in October.

Mr Ramos-Horta took part in the medal ceremony and also presented three Joint Task Force 631 Commendations.

He also honoured ETBG 4 with a Timorese tais (traditional woven cloth) as a token of his appreciation for the efforts of the battle group during its deployment.

President Ramos-Horta said, while addressing the group, that the Australian relationship was of extreme importance to Timor-Leste.

"In 2006, we went to our friends for assistance and you promptly came. Your behaviour in Timor-Leste and that of your New Zealand cousins has been irreproachable," he said.

"You can leave Timor-Leste leaving behind a country more peaceful and stabilised. There are smiles on people's faces that were not there in 2006."

The president also reminded the soldiers that after he was shot on 11 February 2008 he received a great quantity of Australian soldiers' blood, making him part Australian.

Before departing, the president enjoyed a barbecue dinner in the company of the men and women of ETBG 4.

## GREAT WHITE FLEET

In 2008 the United States celebrated the centenary of the voyage of the "Great White Fleet".

From 16 December 1907 to 22 February 1909 President Theodore Roosevelt sent a "Great White Fleet" consisting of 16 gleaming, white, modern American battleships and their escorts on a voyage around the world on a grand pageant of American sea power.

Over 14 months, 14,000 sailors covered some 43,000 miles, making 20 port calls on six continents.

The fleet entered Sydney Harbour on 20 August 1908, where it stayed for a week before moving on to Melbourne, arriving on the 29<sup>th</sup> and departing on 5 September for Albany. Crowds of between 400,000 and 600,000 turned out to welcome the fleet in both cities.

To mark the 100-year anniversary, American and Australian Navy ships re-enacted the visit to Sydney, Melbourne and Albany with a number of social and civic events on their schedule.



The "Great White Fleet" arrives in Port Phillip Bay, Melbourne, 29 August 1908.



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## MAVERICK SHOT

Two air-to-surface live missile firings were successfully conducted in September in a joint exercise involving New Zealand's Navy and Air Force.

In a joint operation using the Navy frigate Te Kaha, Seasprite helicopters from 6 Squadron and an Air Force P3 Orion, two AGM65 Maverick air-to-surface missiles were test fired.

Maritime Component Commander Commodore Tony Parr says that in a first, the Mavericks were fired from naval Seasprite helicopters against two targets at sea, east of Great Barrier Island.

"This is an important demonstration of the Seasprite and the Maverick-missile capability. It is also a very good example of sailors and airmen working together to bring that capability to bear," he said.

"The activity involved a 'start-to-finish' validation of current Royal New Zealand Navy and Royal New Zealand Air Force standing operating procedures, orders and instructions, and to verify the Seasprite as a firing platform for the Maverick missile."

Commodore Parr said the Maverick missile was introduced to service seven years ago by the New Zealand Defence Force, but that this was the first live-firing from an SH-2G (NZ) Seasprite, against either maritime or land targets.

"Regular weapons firings are part of our development and maintenance of operational capability," he said.

"Exercises like today's allow air and ground crews to practice preparation, loading and firing procedures – as well as the handling of live, forward-firing ordnance on board our ships."

Commander Mat Williams, Commanding Officer of HMNZS Te Kaha said the firing was very successful, the air-to-surface missile performed as expected and had proven the capability.



## CANTERBURY CLEARED

An independent review into the acquisition and introduction into service of HMNZS Canterbury has concluded that the ship will be a valuable asset to the navy.

Earlier this year the Ministry of Defence and the New Zealand Defence Force commissioned a review by John Coles, former Chief Executive of the UK MoD's Warship Support Agency.

His findings were released in September and did not identify any new design or performance issues beyond those already identified by Defence, and concluded that, with remedial action, HMNZS Canterbury will "be able to discharge all her operational roles as required in the Functional and Performance Specification (FPS)".

The review also found HMNZS

Canterbury to be an "intrinsically safe" ship, and confirmed that there was no connection between design and performance issues and the tragic death last year of sailor Byron Solomon.

Responding to the review, Defence Secretary John McKinnon and Chief of Defence Force Lieutenant General Jerry Mateparae said an improvement programme for the ship had begun, with some remedial work having already been completed.

"The gap between where the HMNZS Canterbury is currently at, and where it needs to be in terms of performance, can be closed and we look forward to prompt action by the contractor in addressing outstanding issues," Lieutenant General Mateparae said.

## MEDALS HOME

New Zealand's infamously stolen medals of gallantry and honour have been returned to their spiritual home with all due respect and ceremony.

The medals, including nine Victoria Crosses, two George Crosses and an Albert Medal, were stolen on 2 December 2007 and were handed over by NZ Police to the Army Museum at Waiouru in a formal ceremony on 21 October 2008.

Chief of Army Major General Lou Gardiner said he was very excited in having the medals returned to their rightful home and the ceremony acknowledged the professionalism and dedication of all those involved in their successful return, including the support of the New Zealand public.

"The Army Museum Waiouru is the home for the New Zealand Army's military heritage and taonga. It is fantastic that we can celebrate the return and display of these medal sets for all New Zealanders to enjoy once again," he said.

"This theft was a theft from the nation and we acknowledge the support of the New Zealand public in helping return these treasures home. It was their support and the public outcry that helped bring about their successful return."

Almost 1500 visitors made the trip to the QEII Army Memorial Museum at Waiouru over the subsequent three-day weekend with many visitors expressing strong interest in seeing the medals, now housed in a newly built Valour Alcove.

## FOREIGN REPAIRS

France's light transport ship Jacques Cartier arrived in Auckland in August for a unique refit program to be carried

## BISHOP OF DILI DROPS IN

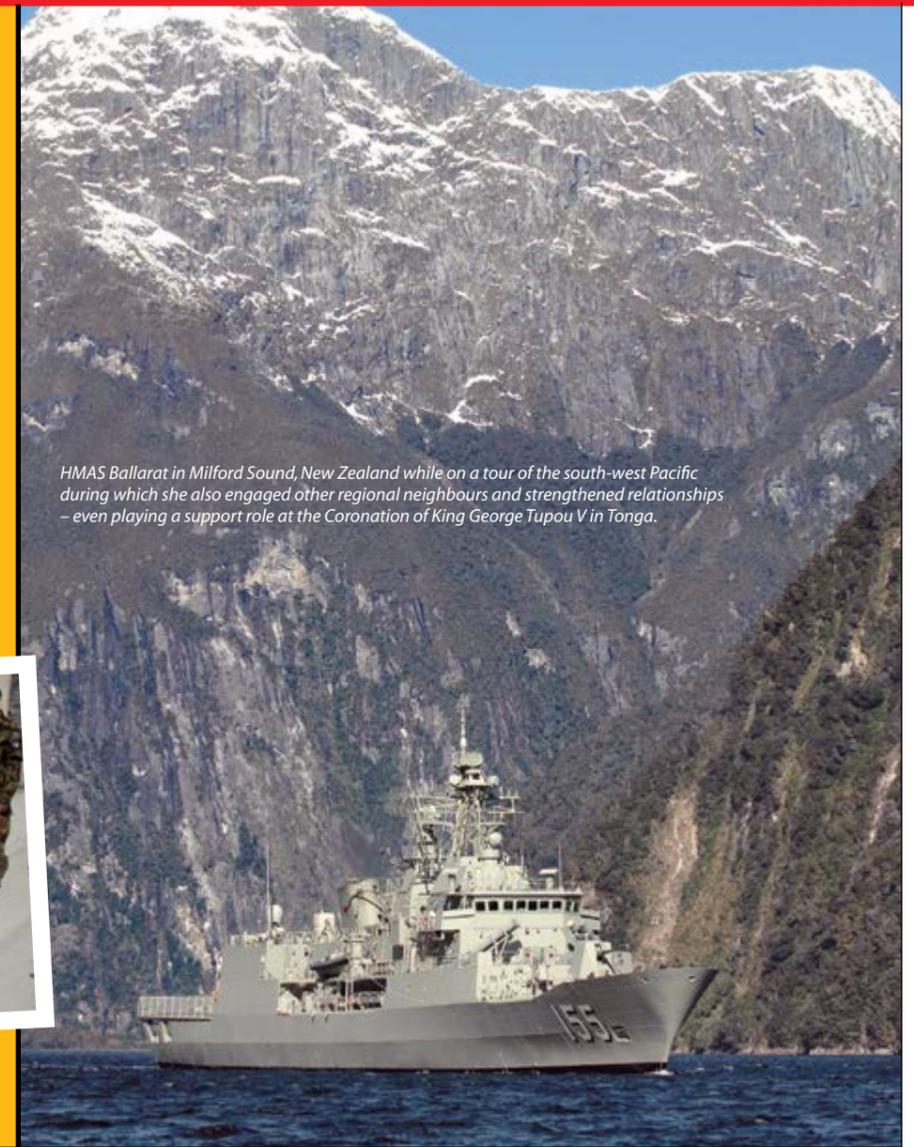
By invitation from the International Stabilisation Force (ISF), Bishop of Dili Ricardo da Silva made a special visit to the New Zealand Army base, 'Kiwi Lines' and, naturally, was given a traditional Maori welcome as a symbol of respect.

The invitation to visit was to thank the bishop for the use of church property over the past two and a half years. The New Zealand infantry will vacate an old property on the Dili waterfront that they have occupied since May 2006 and move in to the Australian base.

New Zealand has 150 Defence Force personnel deployed in Timor-Leste. An Air Force contingent of 31 people and two Iroquois helicopters returned home in October. Australian and New Zealand forces are working to support a large overseas police contingent to maintain security in the troubled nation.



Bishop of Dili Ricardo da Silva is welcomed to 'Kiwi Lines' in traditional fashion.



HMAS Ballarat in Milford Sound, New Zealand while on a tour of the south-west Pacific during which she also engaged other regional neighbours and strengthened relationships – even playing a support role at the Coronation of King George Tupou V in Tonga.



An SH-2G (NZ) Seasprite lifts off from HMNZS Canterbury

## NAVY'S EXPANDING FLEET

The last of the four inshore patrol vessels being built entirely in New Zealand by BAE Ship Builders in Whangarei has been launched.

"I name this ship Taupo, and may God bless her and all who sail in her", Launch Lady Susan Satyanand said as she cut the ribbon releasing the traditional champagne bottle on to the ship's bow.

Taupo is now one step closer to her delivery date and is another significant step in the introduction into the Navy of seven new ships under Project Protector.

Once all the ships have been commissioned into operational service, the Navy's Protector Fleet will comprise seven ships of three different classes – one multi-role vessel, two offshore patrol vessels and four inshore patrol vessels.

Chief of Navy Rear Admiral David

Ledson said Taupo was a name with a proud history in the Navy and he was sure the new ship's record would match that of her predecessors.

"Together with the rest of the Navy, I look forward to welcoming Taupo and Rotoiti, Pukaki and Hawea to the fleet."

Taupo's commanding officer (designate) Lieutenant Jonathan Clarkson said he was proud to have been selected for this command and especially proud to be taking command of Taupo because she will be affiliated to his native Northland.

"I hope to visit as much of the Northland coast as possible and increase the profile of the Navy in Northland," he said.

The inshore patrol vessels will be used to conduct maritime surveillance in support of other agencies such as Customs and Fisheries. They will be able to patrol the New Zealand coastline from the shore to approximately 24 nautical miles.

# 'THE GRAND PRIX OF AIR SHOWS'

WORDS AND PICS BRIAN HARTIGAN

## AVALON GRABS POLE POSITION

If you were an organiser for the biggest air show in the southern hemisphere, what would be one of the worst things that could happen, six months out from the big event? Another hallmark event decides to lock in the same weekend in the same city, forcing you to change dates!



**T**hat's what happened when new 2009 Melbourne F1 Grand Prix dates were announced just a few months ago. Not only did this cause Avalon Airshow organisers a major headache, but the whole Melbourne/Geelong tourist fraternity suddenly went into meltdown – there was no way all the fans for two events of that size could be accommodated on the same weekend!

Despite the potential for losing or upsetting many of their essential corporate and military exhibitors – all of whom have long-term logistic plans in place for getting to this event – the organisers kept a cool head and eventually claimed 'pole position' for March next year.

Airshow Chief Executive Ian Honnery said that with outstanding levels of cooperation from stakeholders, exhibitors, contractors and participants from around the world, the dates for the Australian International Airshow 2009 were rapidly changed – **10 to 15 March 2009.**

"In fact, the new dates for Avalon 2009 have turned out to be better than our first dates," Mr Honnery said.

"Being two weeks earlier, the probability of excellent weather conditions for the event has increased significantly and constraints on accommodation have been avoided.

"In its new pole position at the forefront of Victoria's major events next March, Avalon 2009 will be the 'Grand Prix of Air Shows' in the Asia-Pacific region and the essential place to do business."

Despite the setback and with new dates locked in, the Australian International Airshow at Avalon is back on track and actually set to be even bigger and better than ever before.

Those familiar with the indoor exposition, for example, will be pleased to know that the 'largest temporary structure in Australia' will be even bigger next year.

Group Manager Exposition Services Don Fraser says the exposition structure (the massive white 'tents' familiar to past attendees) will be bigger, more uniform and better presented.

In the past, there were two main spaces, connected by a smaller annex, that housed the main corporate display areas where businessmen came to spend big and where kids came to vacuum up free showbags. Next year, the annex is gone and a third, equal-sized enclosure will expand the available floor space to let more exhibitors and better facilities take up residence.

The previous show, in 2007, achieved record outcomes – 457 aircraft on display, representing the complete spectrum of aviation – from commercial, corporate and military, to business, general aviation, sport and recreational (another 800 light aircraft flew in as visitors); 611 exhibiting companies from 20 countries participated – and more than 182,000 mums, dads, kids, grandparents, soldiers, sailors, airmen, businessmen and other assorted humans filed through the gates.

"The 2009 show is set to be even bigger," Mr Honnery said.

"The event continues to grow, with more and more exhibitors participating from around the world each time, and a new

exhibition pavilion being added in 2009 to accommodate that expansion.

"It is recognised as one of the most significant aerospace and defence-industry events of its kind in the world. It is the most comprehensive and multi-faceted airshow and aerospace exhibitions in the Asia-Pacific region."

*LanDef* – the recently added land component of the show is also set to expand, adding greater depth to the whole experience.

Focusing on the air/land defence interface, this will again feature extensive displays of land-based equipment, ground-warfare technologies and land-defence systems. In addition to the internal exhibition pavilions, external areas are available for displaying military vehicles and equipment in their natural environment, including a vehicle mobility display area where military vehicles' off-road capabilities can be demonstrated.

Themed "Towards Tomorrow", Avalon 2009 will showcase the exciting technological advances that are emerging to meet the challenges of tomorrow, and will also commemorate the 40th anniversary of man's first landing on the moon.

With 'skills shortages' a recurring theme in media, industry and government debate in recent times, Avalon has also got its finger on that pulse.

"Avalon 2009 will be a valuable international showcase for Australia's, and especially Victoria's, aerospace and defence-industry capabilities and will host a major national careers

and skills forum for teachers and careers advisers from around Australia to help address the nation's critical skills shortage in the aviation, aerospace and defence sectors," Mr Honnery said.

"Skills shortages in aviation, aerospace and defence are critical. If we don't start actively recruiting young people to embrace these career options then we face a dramatic decline in these industries."

The aim of the Careers and Skills Program is to build on industry support and develop interest in the community in these career paths. The program also aims to showcase training and recruitment opportunities.

Avalon 2009 includes exhibits and activities specifically designed to inform and encourage interest among students, parents, teachers and career professionals.

"What better way to stimulate young people's imagination and enthusiasm and, hopefully, also stimulate their interest in aviation and aerospace careers, than for them to have a go on a flight simulator or to get close to a modern combat fighter, a sophisticated business jet or the latest high-tech light aircraft.

"Avalon 2009 will also be a unique opportunity for teachers of science, maths, trade and technology to learn more about the career opportunities that are out there for their students."

Tickets for the Australian International Airshow at Avalon, from 10-15 March 2009, are now on sale through Ticketmaster or the airshow's web site [www.airshow.com.au](http://www.airshow.com.au)



# Adaptive Army

## MEETING THE CHALLENGE

WORDS BRIAN HARTIGAN



As another author in this issue says, "a change in mentality or combat philosophy is likely only one change of command away".

Enter Lieutenant General Ken Gillespie as the new Chief of Army and, it seems, one of the biggest changes in the structure and philosophy of the entire army is upon us.

While the new structure is not change for change sake, it is, in recognition of the facts, setting the army up to continue today's high tempo of operations – or higher – as the new norm.

Though little will change noticeably for the casual observer, the new-look army will certainly look and feel a whole lot different, from the top down.

Yesterday's army structure post 1970 included Land Command (responsible to CA for force readiness and the conduct of operations), Special Operations Command (does what SF does), Training Command (responsible for all training-related activity) and Logistics Command (materiel support).

Today's army is undergoing a change that, when fully implemented by January 2011, will see a new structure that, in a nutshell, will consist entirely of Special Operations Command (to do what SF do), Headquarters 1<sup>st</sup> Division (responsible for high-level preparedness, pre-deployment training and the conduct of operations) and Forces Command (feed men and equipment to HQ 1 Div in support of operations).

### Here's how it works...

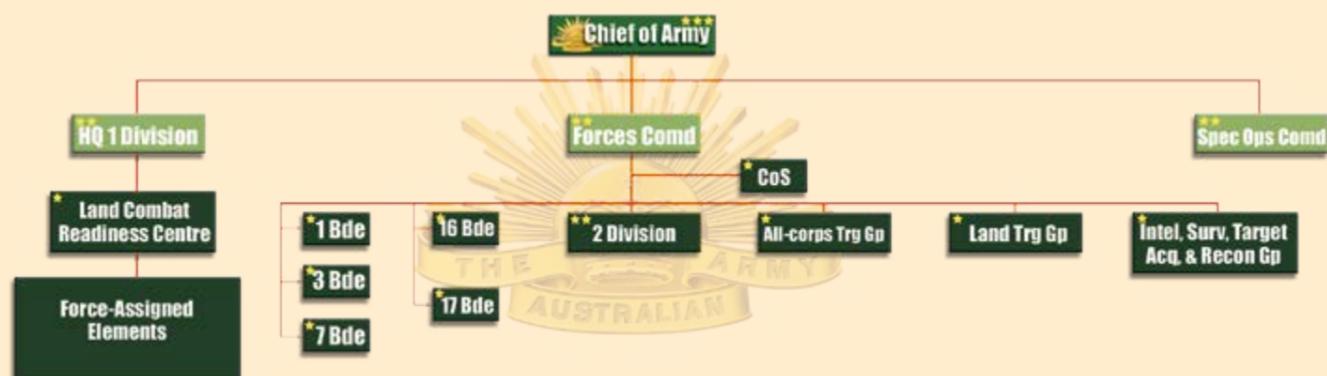
**Special Operations Command** will, according to the literature, simply 'retain its extant mission and function' (albeit at the level of two-star command, answering directly to the CA).

**HQ 1 Div** will take adequately trained and equipped force elements from Forces Command, give them higher-level, mission-specific, collective training and employ them on operations. When the operation is complete or the force element has finished its tour of duty, it will return to Forces Command to be refreshed, replenished and prepared for another cycle.

**Forces Command**, in a nutshell, will take individual civilians off the street and turn them into soldiers. It will also be responsible for ensuring 'force elements' (brigades, battalions, units) are adequately manned, equipped and trained, ready to be handed over to HQ 1 Div as usable force elements for operations.

It should be obvious by now that this change means the Australian Army of the future is all about 'operations' – Special Forces Command will do what it does best (use your imagination, but you can be sure it won't be sitting on its collective fanny), while HQ 1 Div will lead the conventional push, with Forces Command supplying the men and equipment HQ 1 Div needs – end of story.

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In the previous issue of CONTACT we looked at Tiger and Black Hawk simulators for pilot and battle captain training. Costing more than a combined \$100 million to build, we nonetheless decided they were worth every penny.

However, in the Black Hawk world, as well as Chinook and the soon-to-be introduced MRH-90, there's a third and sometimes fourth member of the aircrew who also needs to be trained – the aircrewman, formerly known as loadmaster.

Does he have a simulator to enhance his training and, if so, where is it?

WORDS AND PICS BRIAN HARTIGAN

scenarios over and over for several hours before they even look like touching a live aircraft, so when they do deliver their first serial in the real aircraft, they should be close to word perfect already."

Sergeant Minton says he already knows that AVRS is a valuable tool and is much better at delivering higher levels of training earlier than how it used to be done, but because the simulator is so new, they don't yet have a database of results to quantify how successful and valuable it really is.

"We are getting better in this regard, though, because we are recording the effect. We know that trainees have a much better understanding of their job before they even get in an aircraft – they already know what to expect in various serials.

"When they get in the aircraft to do 'clearances 1', for example, they have already seen 'clearances 1' in the virtual environment, so they have already covered their cabin drills and are more comfortable delivering their requirements.

"Essentially, when we go out there, the student is being watched by his instructor in the aircraft instead of being coached in the aircraft.

"In effect, that means those sorties can be more about honing skills than trying to teach new skills."

He says they are not actually trading off any hours in the live aircraft, but they are getting a much better product much earlier in the training cycle – which means the trainee can be much more employable at the unit level much quicker.

At least, that's the goal.

"For example, to get an aircrewman up to D Cat NVG qualified, it takes 12 to 18 months on the job. With AVRS, it is our goal to generate NVG-mission effectiveness within six months of graduation – potentially saving a whole year's worth of training liability on the units."

Sergeant Minton says AVRS delivers NVG training particularly well. Because of the limitations on the field of view already inherent in the system's headsets, it is very easy to put an NVG circle in the trainee's view and replicate the green NVG environment, thus teaching students the necessary scanning sequences much earlier than they would otherwise be exposed to.

"Teaching them early means those habits stick with them. So, when they are out there in the real world, under stress and under pressure, they will automatically revert to what they were taught here."

Another advantage of the size, cost and relative low-tech base of AVRS is the possibility of placing these systems in operational units where aircrewmen could potentially use them to rehearse a mission

Trooper Justin Murphy scans his arcs - AVRS style

# Simulation on a shoestring

**A**ircrewman Virtual Reality Simulators (AVRS) are a relatively low-tech and definitely a lower-cost addition to aircrew training at Oakey, the home of Army Aviation training.

Unlike the custom-built, air-conditioned, modern, clean, white buildings that house the pilots' simulators, aircrewman trainees step into the wonderful world of virtual reality in what used to be the other-ranks boozery. Gone is the bar, replaced by a small table with coffee-making accoutrements, the windows are covered over with high-tech cardboard and the once-sticky carpet has been steam cleaned.

First impressions (and humour) aside, AVRS seeks to do for aircrewman training at least some of what the full-fidelity simulator does for the guy in the front seat – and that is, reduce the number of training hours required on a live aircraft in producing a higher-standard 'product' earlier.

Sergeant Dan Minton, Aircrewman Trade Manager, is largely responsible for developing the training requirements needed to bring AVRS into service.

"We've been doing some fairly significant development work in the past 12 months on this," he says.

"Initially, AVRS was introduced to replace a part-task trainer – which was essentially an old Tarago van, driving around the car park to practice cabin procedures, cabin drills and that sort of thing.

"AVRS was introduced partially to supplement that, and to increase the trainees' awareness of what they have to do in the aircraft, before we actually let them in a live aircraft."

When the system was introduced, though, they found it could do so much more than just simply teach cabin drills and basic scanning techniques.

"We now have the ability to do day and night operations and we're looking at the possibility of doing multi-aircraft formations – anything from basic one-ship operations on the tarmac up to and including two-ship NVG operations, including door-gunning and a range of other stuff," Sergeant Minton says.

"We have also used it in the selection process as a tool to show potential aircrewmen what their new role will be, where they can experience the full gamut of what an aircrewman does. And we can't really do that on a live aircraft before they sign up for the job.

"And when they do sign on, we can actually shrink their training time and get a better product by using this tool to smash them through various



Trooper Justin Murphy observes his helicopter's landing approach (his virtual-world view visible on the left screen), while Sergeant Dan Minton checks ground clearance (right screen) and WO2 'Smoky' Dawson 'flies' the helicopter (middle screen).

AIRCREWMAN  
DRIVE THEIR OWN  
TRAINING AIDS

before they actually leave the ground. Because it is VBS2 based, they could 'actually fly' the forthcoming mission, over the correct map coordinates – and, as networking becomes more prevalent, even do it in company with other mission players such as infantry, armour or artillery.

Taking a look at the technology itself – AVRS is a PC-based system that started out as a stack of computers about 2m high, is currently pared down to about half that size and is destined, in the not-too-distant future to be driven by a single laptop. The reason for the stack of computers currently is that each element of the system – helmet, goggles, gun, helicopter, terrain and so on – is powered by its own computer, then married together in one central scenario driver.



Trooper Justin Murphy mans a simulated helicopter machinegun

I WAS IMPRESSED BY TROOPER MURPHY'S APPARENT COMPETENCE – EVEN MORE SO AFTER HE TOLD ME HE HAD ONLY 'FLOWN' ABOUT THREE HOURS ON THE SIMULATOR SO FAR!

Reducing the computer requirements could, however, be possible when you consider that maps and scenarios are only in the range of about 75Kb of data. Such small data blocks also mean that tying together multiple systems – therefore multiple-aircraft missions – are possible over geographically displaced networks across the Internet or on a LAN. Plugging in to other, existing networks is also possible, given the VBS2 origins of many current systems.

Imagination is the limit – all that's needed is the will and a little support and funding.

The headsets a trainee and his instructor wear are currently fairly low resolution (1024 x 768 pixels) but may soon be upgraded to 1680 x 1050 pixels, making them very high resolution and thus enhancing the already excellent immersion in scenarios.

Depth perception and restricted field of view is a limitation of the goggles. But then, this is even considered an advantage because it is not unlike the limitations of night vision goggles – and, therefore, simulated NVGs on the sim are very close to the real thing. This translates, as an accidental by-product, to much more competence in a very difficult aspect of flying, as discussed earlier.

Although base cost for the current system is a miniscule fraction of the more intricate pilot simulators, unit cost could be significantly reduced even further by running the system from a simple chair, without the cabin mock-up. The view in the trainee's goggles would not change at all.

However, replicating the cabin in the physical world – putting the crew seat in the right place, having the window the right dimensions and so on – adds to the fidelity of the experience and builds in muscle memory for the trainee. The aircrewman will get used to hooking up his safety harness, moving in all the right ways and all the right places, and will thus already 'know' the aircraft when he steps on board the real thing for the first time.

Also, because he already 'knows' the aircraft and has that muscle memory locked in, he has more brain capacity ready to use on the actual task.

The same also applies to his radio patter and interactions with the crew.

A planned next generation of simulated cabin will be made of hard plastic (instead of fibreglass) and will look and feel much more like the real thing – even down to recessed cargo rings in the floor.

Adding engine noise, wind and vibration could also improve the overall fidelity of the system, but is considered a luxury at this early stage when simply getting the system as it stands accepted and properly incorporated into the training continuum is the priority.

Trainees are not the only ones to benefit from AVRS, though. Trainers, too, can brush up on their instructional skills and cabin patter without having to waste valuable aircraft hours. As Sergeant Rob Knox put it, "I don't need to be in the back of a real aircraft to practice talking".

Remedial training is another valuable aspect of the system. For example, if a student does something wrong on a sortie and the cause is not immediately obvious to either him or his instructor, the sortie can be replicated on AVRS and flown again and again, with everything recorded for analysis.

"When we have narrowed down what his problem is, we can then give him the necessary instruction to fix the problem and keep sending him into situations that he's having the most difficulty with, to iron out the problem," Sergeant Minton says.

"It can be very hard and very expensive to do that on a live aircraft – at \$2000 an hour on a Bell 412 or \$20,000 an hour on a Black Hawk, that's a lot of wasted resources when we can easily sort it out here."

During my recent visit to Oakey, I observed Trooper Justin Murphy going through an external-load hoisting scenario on AVRS. To me, he seemed very competent with his actions and made clear, concise and confident radio calls about heights, distance to run, clearance from obstacles and all the other considerations he had to weigh up for the mission. Afterwards, in a self-assessment opportunity, he did confess to doing something wrong as well – not scanning enough and getting too focused on the external load. His instructor concurred and, offering a little advice and guidance, Trooper Murphy was then confident he would do much better the next time.

I was impressed by Trooper Murphy's apparent competence – even more so after he told me he had only 'flown' about three hours on the simulator so far!

In summary, I see great potential in AVRS (as do its fans in Oakey) as a training tool for the back-seat aircrew in our tactical transport helicopter fleet and, after it is more widely embraced (and funded) will surely become as indispensable as the mainstream pilot-training simulators that cost hundreds of times more per unit to purchase, run and maintain.



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Trainee pilot Captain Damien Watson familiarises himself with the black hawk cockpit at RAMS

# RAMS

## charging ahead

RAMS – RAEME Aircraft Maintenance School – is a place I know well. Or at least I thought I did until I visited it again recently. A lot has changed in the 12 or so years since I last did a course there. In fact, a lot has changed in the past two or three years – or so I'm told.

WORDS AND PICS BRIAN HARTIGAN

Like many units in the Army, RAMS has undergone numerous name changes over the years – ostensibly to better reflect the role and mission of the organisation, but often (at least to the casual observer) for no more logical or rational reason than the whim of a new commander. Affectionately and steadfastly called RAEME Aircraft Maintenance School by all who love it, the historically correct name, still used in general conversation, actually contradicts that which appears on the signage out front – Rotary-Winged Aircraft Maintenance School.

Names aside, the function is the same – to train soldiers in the maintenance of the Army-owned aircraft fleet – all of which happen to be rotary-winged at this point in history (the fixed-wing fleet currently consists of leased aircraft maintained by civilian contractors).

On a recent visit to Oakey, I was shown around the new RAMS headquarters and learning facilities by Warrant Officer Class 2 Charles Phillips, responsible for quality assurance in training delivery at the school,

who pointed out that the main building was less than four years old.

He also told me that, despite the Royal Australian Electrical and Mechanical Engineers being one of the largest corps in the Army, RAMS is one of only two RAEME units in the country (the other at Bandianna) and only acquired 'unit' status recently when an officer commanding was appointed in deference to a chief instructor.

However, RAMS is still a school and, as such, is the Army's primary training facility for all things related to army aircraft maintenance. It conducts 'type' courses on Kiowa, Black Hawk, Tiger and, in the near future, MRH-90 aircraft for new tradesmen fresh out of initial employment training, as well as 'Sub 4' promotion courses for corporals, sergeants and warrant officers. It also delivers courses on CAMM2 – the second-generation computer-based maintenance management system now common to all aviation units in the ADF – and trade training for aircrewmembers and pilots.

To deliver its product, the new-look RAMS has a lot of space, including modern, well-equipped classrooms, workshops, computer-based learning facilities and offices.

Yet RAMS is but one cog in a bigger wheel of training delivery for aircraft technicians. To see how and where it fits in, let's take a look at the training continuum for a new recruit starting from scratch.

It is possible to be 'corps-enlisted' as an aircraft maintainer (as I was) and go straight from civvie street, through basic training at Kapooka, and into the long trade-training process. 'Corps-enlisting' into a trade means you know you are destined to work on helicopters rather than be syphoned off to infantry, armour, transport or any one of a hundred other jobs open to general enlistees.

Serving members already in other trades or categories can also transfer to RAEME Aviation – in fact, there is currently a big push to encourage technical-trade transfers within the Army. In this case, the individual joins the technical-training cycle without going back through Kapooka first. They will generally hold their current rank and pay scale through training, but will become a private-equivalent 'craftsman' upon graduation.

instrumentation side of the aircraft. These are strange people, officially called avionics technicians, who are responsible for the on-going maintenance of avionic systems and equipment including communication, navigation, radar, electrical, electronics and instrument systems and selected ground equipment. They also conduct limited inspection and repair of aircraft safety equipment and armament.

There is a third group of technicians called aircraft structural fitters. These are skilled tradesmen, responsible for the inspection, testing, repair, rebuild, refurbishment and modification of Army aircraft structures and aircraft structural components. They are specialists in metalworking and composite materials.

Aircraft life support fitters are the fourth trade-specialist group, responsible for

the on-going maintenance of aircraft safety and survival equipment. They look after life support systems including flying helmets, life preserver assemblies, life-rafts and aircraft escape/rescue equipment. Knowledge of explosive ordnance handling and inspection requirements related to rescue pyrotechnics, as well as some other very useful specialties that might not immediately spring to mind (such as using industrial sewing machines) are part and parcel of this job.

Whichever stream is chosen, the potential new aircraft technician, like every other soldier in the Army, must first go through basic training at Kapooka, unless they did it earlier as in the case of transfers.

Then follows a long stint at the RAAF School of Technical Training (who better to teach basic aircraft stuff?) at RAAF Base



Warrant Officer Class One Cameron Kerr and craftsman Anthony Allen work on a Chinook helicopter in a tent in Afghanistan

There are four aircraft-related trades to choose from.

Aircraft fitters or 'black-handers' (the salt of the earth!) are those who look after the mechanical side of the aircraft, much like a mechanic does for a car – the whole aircraft, from the engine to the airframe, from the spark plug to the 'Jesus nut'\*. In practical terms, this means that he or she could be replacing a worn seat belt on Monday and on Tuesday they are up to their elbows splitting the aircraft's gas-turbine engine in two to inspect the compressor blades. They could be doing this in an air-conditioned workshop in Darwin in December or in a dusty, sweltering tent in Afghanistan in June.

The other major trade stream is the 'queer-traders' – those 'others' who work on the electrical, electronic and

\* The Jesus nut or Jesus pin, secures the main rotor assembly to the mast on some helicopters, such as Iroquois. The term was coined by soldiers in Vietnam who reasoned that if the Jesus nut failed in flight, the helicopter would detach from the rotors, at which point the crew's only hope was to pray.

Wagga Wagga. For the black-handers, this takes 52 weeks, 64 weeks for the queer-traders, 42 weeks for structural fitters and 24 weeks for life support. During this period, single members will live on base while married members may move their families to married quarters nearby.

After graduating from RAAF Wagga Wagga, trainees are posted to the Army Aviation Training Centre, Oakey in Queensland, where they complete specialist training on the specific aircraft type they will work on for the next few years (which means that by now they know, or have a fair idea, where they will be posted to the following year).

Oakey, which is about 30km west of Toowoomba, will be their new home for the next 12 months. Married members will most likely live in Toowoomba – though there are some married-quarters in Oakey. Single members will again live on base.

Taking Black Hawk as an example, the students will spend their first 12 weeks at RAMS getting very familiar with the simulated aircraft maintenance trainer or SAMT.

Part of a computer-based-learning system, SAMT student stations consist of three 21-inch LCD touch screens and a 56-inch plasma, also touch sensitive. A virtual 'aircraft' is represented on the plasma while its 'cockpit' resides on one of the smaller screens. A 'controlled tool kit' (CTK) and a 'work bench' take up the other two.

SAMT is a terrific training simulator that allows students to virtually remove components from an aircraft, using correct tools to test or repair the component before replacing it.

During the task, which is conducted in accordance with the aircraft's maintenance schedules, students must simulate every action in the process from virtually removing tools from the CTK, to 'unlatching' the appropriate access panels on the 'aircraft' to nominating whether to turn a mounting screw clockwise or anticlockwise.

SAMT won't let a trainee complete a maintenance task until all the bolts are done back up correctly, all tools are accounted for on the CTK and the paperwork is finished.

Each SAMT work station is used by two students at a time – one operates the virtual tools while the other assists by looking up the procedures in the maintenance manuals and so on.

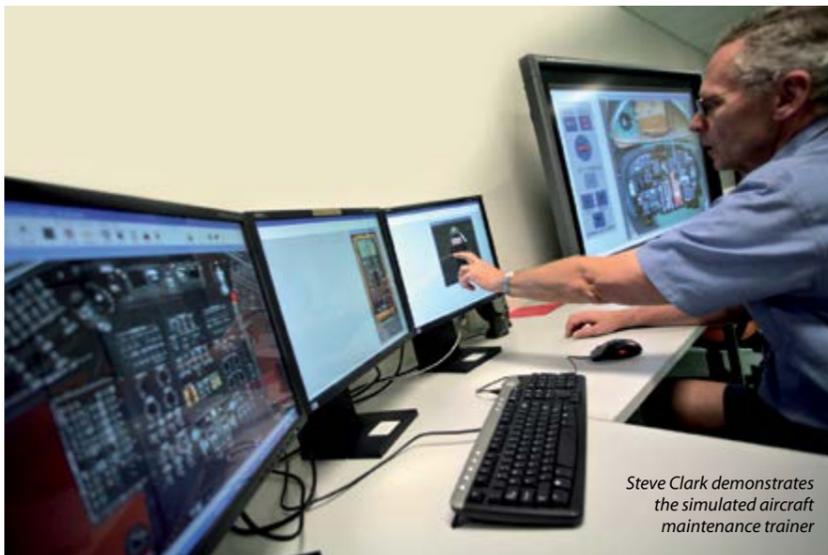
There are four SAMT stations in a training room and all are linked into an instructor's station.

There is also a physical, life-sized cockpit mockup in the middle of the room that is such a useful and lifelike extra training tool that trainee pilots often sit in it for hours



Craftsman James Last works on a Black Hawk training device

## SAMT IS A TERRIFIC TRAINING SIMULATOR THAT ALLOWS STUDENTS TO VIRTUALLY REMOVE COMPONENTS FROM AN AIRCRAFT, USING CORRECT TOOLS TO TEST OR REPAIR THE COMPONENT BEFORE REPLACING IT



Steve Clark demonstrates the simulated aircraft maintenance trainer

to familiarise themselves with the aircraft's instrument layouts.

Assistant manager of the Black Hawk SAMT Steve Clark says that, just like about every other simulation training system, instructors have full overview of what the students are doing at their stations.

"I can tell pretty quickly if the students are going about things in a correct or logical sequence or if they are just chancing their arm in the hope of finding a solution" he says.

"But, of course, doing it by the book is the best way to learn."

Steve is a civilian contractor, and assistant manager of SAMT. There are

military instructors at RAMS as well, which is essential to give students a military perspective on how and why things are done the way they are. With these military members posted in and out on normal posting cycles, it also helps to keep the system up to date with current practices and procedures out in the units.

After 12 weeks on the SAMT, the trainees are now ready for the next phase – 12-weeks of hands-on, practical work on a Black Hawk maintenance trainer. This trainer is just like the real thing – because it was before being written off in an accident. Now it is the most worked-on Black Hawk airframe in the Army. Trainees

even incorporate modifications and STIs (standard technical instructions) on it to keep this training aircraft as close to authentic as any airframe sitting out on the tarmac.

Craftsman James Last, aged 19 from Geelong in Victoria, is a corps-enlistee I met at RAMS who was on the 12-week Black Hawk maintenance trainer OJT segment of his trade training. He is an avionics technician.

He says it was very good to finally get his hands on a 'real' aircraft.

"It helps to get back hand skills that may have got lost or deteriorated during the theory and sim phase," he says.

"Today I'm reinstalling an RMI – radio magnetic indicator. It was one of three items I had to remove, inspect and replace so I can get one of the signatures required in my journal."

What he's referring to here is a 'National Aerospace Curriculum Journal' that, when eventually fully signed off, not only means the trainee is qualified and competent to work on Army aircraft, but will also be a very valuable document later on if he decides he's had enough of soldiering and wants to pursue a career in the civil aviation industry.

Craftsman Last says the 12 weeks spent on the SAMT were very helpful in learning the systems and procedures, but getting hands-on was very rewarding.

"Everything we learned on the SAMT made it a lot easier when it came time to work on the real aircraft – but getting hands on, made all that theory gel."

After the OJT phase, trainees move on to a more front-line setting for another 12 weeks in the 'front shops' – the real flight-line workshops at Oakey – followed by 12 weeks at an active unit in the regiments. All this time they are actually posted to RAMS and detached to a unit for the final phase but, come posting time, they will

usually return to the unit in which they did their final 12-week training block.

It's worth noting that, unlike most other trades in RAEME – a vehicle mechanic, for example, who could be posted to just about any unit across the country – aircraft technicians only have Darwin, Townsville, Sydney or Oakey to choose from. This can actually be a very good thing, especially for members with kids, who desire stability and longevity in posting locality. On the other hand, helicopters are always in very high demand, which can mean long or frequent stints on exercise or overseas – a good or a bad thing, depending on personal perspectives.

On completion of their initial formal training, the new technicians are awarded a civilian-recognised Certificate in Aircraft Maintenance Engineering, relevant to their specialty.

However, the learning never really stops, with technicians picking up new skills, experience, specialist courses and career-essential promotion courses until the day they leave the Army – whenever that might be.

And RAMS, one of only two fully fledged RAEME units in the country, will be there to deliver major parts of the training he or she will soak up through his or her career.

## IN MY OPINION...

**Problem:** Having been an aircraft fitter and been through the associated training, I would like to highlight one serious drawback in this career choice that, in my opinion, could be a major impediment to recruiting – trainee pay. On a course that lasts more than a full year (plus bootcamp), the financial disincentive is significant.

**Example:** Take a truck driver on pay group 2 and compare him to an avionics technician on pay group 4. By my calculations, the tradesman, whose course is 64 weeks long, could take 10 years or more to catch up with the truck driver in terms of accumulated total wages earned, after falling behind in the training phase. The truck driver not only has a 56-week head start on a real wage, but also reaches promotion milestones and specialist-course opportunities that much sooner as well.

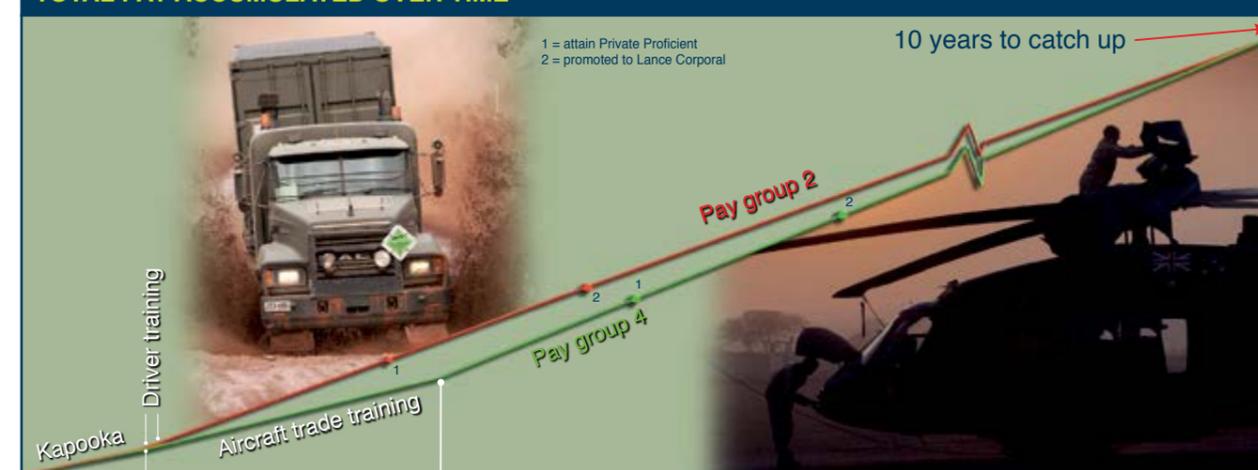
When I've raised this issue in the past, some have said, "yes, but the tradesman will have a higher salary in his pocket each fortnight, once he's qualified". Even this may not be true if the truck driver has reached his promotion and specialist-course milestones, which he could easily do even before the tradesman has finished training.

**My solution:** Just about all RAEME tradesmen need a driver's license on the job, so why not qualify them as drivers before they start their trade courses? I know this can be done because one bloke, who graduated from Kapooka about eight weeks earlier than I did, was sent on a driver's course to fill in time before our trade course started, thereby entitling him to a proper wage all through training, while I made do on trainee pay – about \$21,800 per year less at today's pay rates.

**In recruiters' favour, however,** people who passionately want to be around aircraft regardless (like I did), won't think too hard about the financial implications in the first place. If I was smart about it, though, I should have joined the Army as a truck driver first, then corps transferred in a year or two – thereby keeping pay and rank entitlements all through the long aircraft-trade-training phase.

*You live and learn!*

## TOTAL PAY ACCUMULATED OVER TIME



# AMBERLEY SOARS

WORDS AND PICS BRIAN HARTIGAN

The RAAF is back in the business of running air shows at its various bases around the country and this year's event at Amberley in south-east Queensland was surely the biggest such official Defence event ever.

**W**hether it was a flow-on result of having staged a similar event at the same venue four years ago, the advertised last appearance of the F-111 or just a happy alignment of planets, this year's RAAF Air Show at Amberley was a huge success in every way.

More than 40,000 tickets were pre-sold even before the early-morning traffic snarls

headed west from Brisbane, building to an overall crowd of more than 90,000 people over two days.

Despite an excellent traffic-management plan, where the Cunningham Highway is turned into a one-way thoroughfare (reversed direction in the evening), some air-show fans reported (without really complaining) that they had been caught in the slow-moving car park for nearly three hours, despite leaving home before 7am!

When they eventually got inside, they were treated to an excellent, well-organised event in 38-degree sunshine.

There was no shortage of airplanes to look at, touch, smell and even climb inside.

The Royal Singaporean Air Force, the US Air Force and numerous civilian organisations added weight to the official RAAF spectacle – though much of the foreign military hardware remained on the ground throughout.



## FIGHTER INVENTORY

### HORNET (A21-)

Make	McDonald Douglas
Built	USA
Engine (2)	F404-GE-400
Thrust	7258kg
Max speed	1915km/hr
RAAF service	1985-current

### HAWK (A27-)

Make	BAE Systems
Built	UK/Australia
Engine	Adour
Thrust	5443kg
Max speed	1207km/hr
RAAF service	2000-current

### METEOR (A78-)

Make	Gloster
Built	UK
Engine	Derwent
Thrust	1633kg
Max speed	962km/hr
RAAF service	1946-1963

### Vampire (A78-)

Make	de Havilland
Built	Australia
Engine	Goblin
Thrust	1853kg
Max speed	866km/hr
RAAF service	1952-1970

### P-51 Mustang (A68-)

Make	North American
Built	Australia
Engine	Merlin (27ltr V-12)
Power	1650hp
Max speed	635km/hr
RAAF service	1945-1959



**AMBERLEY**

With the venerable F-111 due for retirement well before the next event at Amberley, one of the highlights of this flying show was also one of the last-ever public appearances of the 40-year-old 'Aardvark' in south-east Queensland.

This swan-song had a surprise up its sleeve, though, with the aircraft's famous and always appreciated 'dump-and-burn' adding an extra twist to the flying pig's tail – a second burn, initiated during a touch-and-go landing and continuing into a steep climb away.

Other aircraft also impressed and thrilled the crowds – first-timers and veteran air-show goers alike.

While many people were a bit sad to see F-15 and F-16 fighters and the Tiger

helicopter remain firmly planted on the ground, about four hours of continuous action in the air more than made up for it.

On the nostalgic side, the numerous 'warbirds' were majestic. And when the old and the new came together in formation, cameras went into overdrive.

One such formation brought an amazing cross-section of the RAAF's past and present fighter fleet together – Mustang, Vampire, Meteor, Hawk and Hornet – while bomber fans were treated to a three-ship flight comprising Hudson, Canberra and F-111 – the latter working hard to fly as slow as the others!

On the modern side, demonstration and precision displays by lone aircraft as well as formations thrilled and amazed.

The Navy's 'Dancing Squirrels' helicopter routine was excellent as always, while a new routine by the ever-popular Roulettes thrilled equally.

Then there was the four-ship F-18 performance I first saw at Avalon 2007. They were spectacular in their 'usual' routine, performed so amazingly close together, but with an added ground-attack simulation, complete with on-the-ground explosions and fireballs – these guys rock!

If you missed the spectacle and excitement at Amberley this year – more fool you. But don't despair – there are numerous opportunities to get your aviation fix in 2009...



<b>Australian International Airshow, Avalon</b>	10-15 March	Avalon, Vic
<b>Wide Bay Australia International Airshow</b>	3-5 July	Bundaberg, Qld
<b>RAAF Airshow</b>	Dates to be advised	Townsville, Qld
<b>Red Bull Air Race</b>	?? November ??	Perth, WA
<b>Temora Flying Days</b>	bi-monthly	Temora, NSW



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# SAFE BLANKS

ADF training is dangerous. Even training with blank ammunition could have fatal consequences. But a new range of training munitions completely eliminates that danger.

WORDS AND PICS BRIAN HARTIGAN

Two 'dimples' caused by the BBR bolt's firing pin missing the primer of a standard blank round.



One of the biggest risks faced by ADF members training with blank ammunition is the distinct possibility of live ammunition getting into participants' magazines. It has happened – at least twice that I've heard of in Australia in the past year or so.

Currently, if live contamination occurs with the conventional blank ammunition used by the ADF, the best case situation is a catastrophic weapon failure – the worst case being loss of life. Not only could the soldiers, sailors or airmen being fired at be seriously injured or even killed, but so too could the person firing the weapon as a live projectile bursts through the blank firing attachment (BFA) at the end of the barrel.

So, why doesn't someone come up with a system whereby live ammunition could not



be fired by a weapon that is only supposed to fire blanks.

Well actually – someone already has!

UTM have come up with a system including a round known as the battlefield blank round (BBR) and an internal weapon modification that both eliminates the need for a BFA and makes it impossible for a live round to be fired, even if one is accidentally chambered.

Another advantage of the UTM battlefield-blank system is that minimal personal protective equipment (PPE) is required – the safety stand-off distance when firing the blanks is just 45cm from the muzzle. That's because there are very little emissions from the round – a minute amount of primer-generated gas expelled from the muzzle, but no little bits of powder, wax or metal as can be expelled when using current blanks. There is also negligible barrel fouling and no fouling in the gas system.

UTM's battlefield blanks employ a two-primer configuration in the same round. The first primer produces the energy required to cycle the weapon's working parts. It also causes a ball bearing to propel forward inside the round, initiating the second primer, which causes the 'bang' required for realism.

However, there is also a second round – the silent blank round (SBR), which, as the name suggests, operates with little or no noise, but otherwise cycles the weapon's working parts in the same way as the BBR. This is ideal for training indoors or in a real urban environment without disturbing the neighbours.

This noiseless operation is achieved by the SBR because it does not have the ball bearing and second primer built in – just the one primer required to impart the energy to cycle the weapon.

The key safety feature of the whole system, though, is the blank-firing bolt, which simply replaces the live bolt in a standard weapon. Before going on exercise using blanks, the Q store will issue a UTM BBR bolt to replace each weapon's live bolt, instead of issuing the usual BFA.

In the BBR bolt, the firing pin is installed at an angle, thus making it impossible for it to strike the primer of a live round (see pic above).

The only concern I might have with this system is that, without the visual cue of a BFA screwed into the end of the barrel, a person being aimed at has no way of knowing whether the rifle is live or blank. But this could easily be solved by adding a visual reference when the bolts are swapped.

For more information on UTM's battlefield blank and silent blank rounds, contact XTEK on 1800 500 032.

Compare the firing-pin placement of a live bolt (left) and a BBR bolt.



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# FIGHT FOR LIFE

## Aussies aid bomb victims

Soldiers from Reconstruction Task Force 4 have fought to save the lives of four Afghans seriously injured by a Taliban roadside bomb in late September – during the holy month of Ramadan.

Five people died and four others were injured after their car hit an improvised explosive device when they stopped to change a tyre near Sorkh Morghab, 20 kilometres north of Kamp Holland.

The diggers, who were building a medical centre in the area, worked with Dutch and Afghan troops to treat the three injured men and a young boy with head wounds, before they were flown by American helicopter to the Coalition hospital in Tarin Kowt.

The area around Sorkh Morghab has seen the Australians involved in several engagements with Taliban fighters.

On 8 July, rocket-propelled grenades and small-arms fire were used to ambush an Australian patrol, but the volume of return fire, especially from armoured vehicles, forced the enemy to withdraw quickly.

Trooper Dale Stephan, a 23-year-old from Brisbane said that from his point of view, everyone did their job very well in the fight.

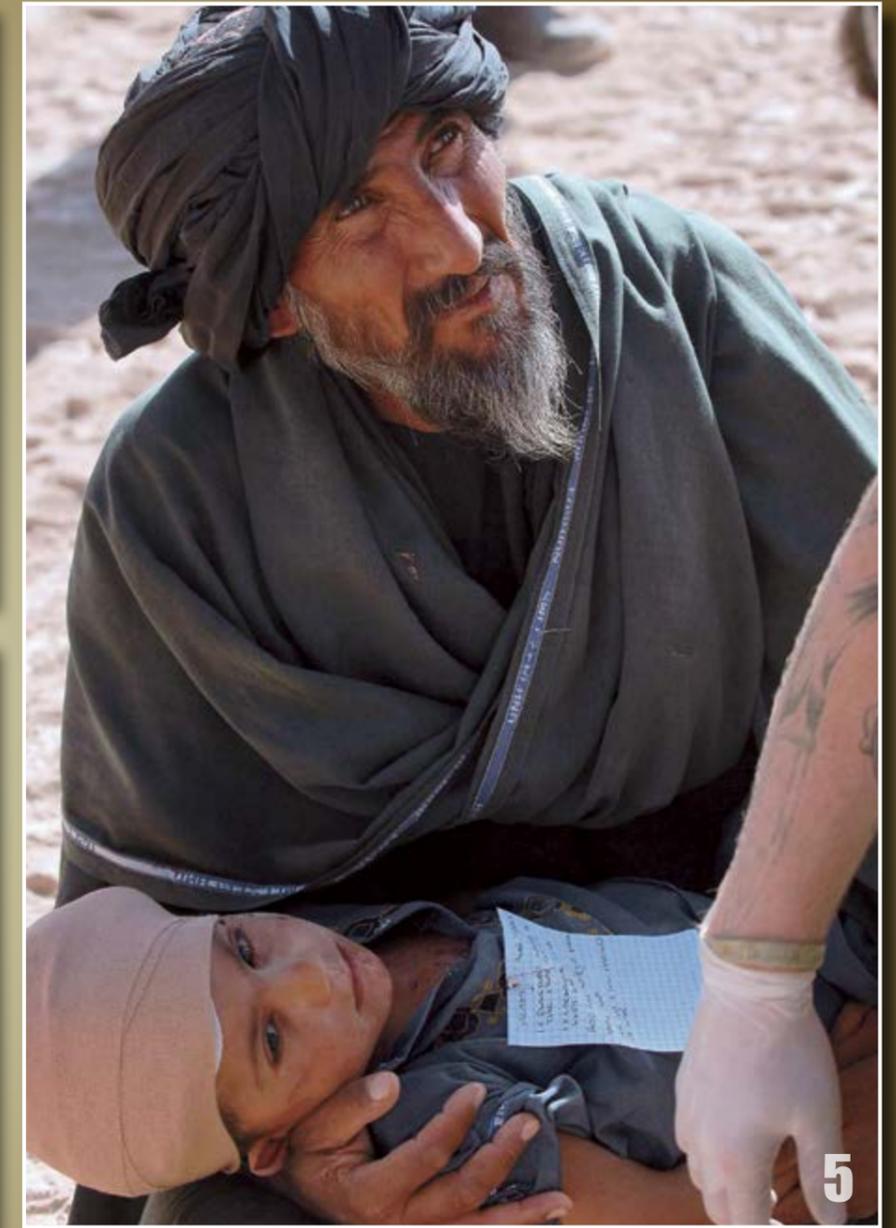
"It shows in the outcome – our drills took over, and the people we saw weren't there very long, especially after we fired our main gun," he said.

"Basically they ran off with their tails between their legs. We certainly made them fear what the Australians can do."

Two days later Trooper Stephan's patrol arrived at a police outpost just as the Taliban launched another attack. Although the Afghan police held their ground, the assistance of the Australians and nearby Dutch forces was well appreciated by the policemen.

Again the Taliban were forced to quickly flee the battlefield.

No casualties were suffered by the Afghan or international security forces in either attack.



1 Australian and Afghan soldiers assist a local civilian injured by a roadside bomb.

2 Australian and Afghan soldiers treat a local man injured by an improvised explosive device in Uruzgan Province, Afghanistan.

3 Australian medic Corporal Johnathon Tynan treats an Afghan civilian injured in a Taliban bomb blast.

4 Corporal Chard Mortimer and Private Dale 'Irish' Macaskill assist victims of a roadside bomb.

5 Cradled in his father's arms, an innocent victim of a roadside bomb is prepared for evacuation by Australian soldiers.

6 Soldiers prepare to evacuate a local civilian injured by a bomb in Uruzgan Province, Afghanistan.

7 Australian, Afghan and Dutch troops race to evacuate victims of a Taliban roadside bomb via a US helicopter.

# BUILD A BRIDGE AND GET OVER IT

WORDS  
BRIAN HARTIGAN  
PICS  
CORPORAL  
NEIL RUSKIN



Many hands make light work in a race against the clock

**THE TALIBAN HAD SABOTAGED A NUMBER OF KEY BRIDGES ALONG THE ROAD BETWEEN KABUL AND KANDAHAR. OUR JOB WAS TO COME OUT OF OUR PROVINCE, TO REBUILD THOSE BRIDGES...**



Lance Corporal Christopher Lewis works on the bridge build



Manpower moves the giant mechano set

**S**oldiers from Reconstruction Task Force 4's Combat Team Dagger travelled more than 400 kilometres from their base in Tarin Kowt in August to rebuild two bridges destroyed by the Taliban.

The bridges, in Zabol and Ghazni Provinces, were vital links in the main supply route between Kandahar and Kabul and it was deemed that the Australian team were the only elements in the country that could complete the task in a reasonable timeframe.

ISAF requested that RTF4 complete this important work, despite the distance involved, because no other units in

Afghanistan were available who carry out the dual security and engineering tasks required.

It was expected that the RTF4 would build each bridge in four days, but the Australian Combat Engineers and Assault Pioneers built them in half that time – with just a little help from Dutch, Romanian and American forces that operate in the area. Members of the Afghanistan National Army also assisted with security at the sites.

To complete the rebuilds, Combat Team Dagger drove more than 400 kilometres to Zabol and Ghazni Provinces, close to the Afghan border with Pakistan.

Commanding officer of RTF4 Lieutenant Colonel Stuart Yeaman said it had been a significant operation both for the Australians and ISAF elements.

"The Taliban had sabotaged a number of key bridges along the road between Kabul and Kandahar. Our job was to come out of our province, to rebuild those bridges and to move back safely," he said.

"Our role as the reconstruction task force combines two components – a security component and engineering component and we were one of the few organisations that were available to ISAF that could put those two components together.

"So, we were brought out of our province, down here to do this job near Kandahar.

He said the package they had brought with them was very strong.

"It combines all the necessary parts we need to provide our own protection and it does put the Taliban on the back foot. They do not like to tangle with us with this amount of firepower rattling around."

Lieutenant Colonel Yeaman said the achievement of building both bridges so quickly and so far from base clearly made a great impression with Australia's NATO allies.

"This was NATO's number one priority – to reopen the road – and they expected it would take far longer to do it than the Australians were actually able to do it in.

"Turning it around in such a quick time and completing the task inside two weeks, we have actually shown our allies just how capable we are."

RTF4 has since returned from Afghanistan and been replaced by the first rotation of the infantry-led Mentoring and Reconstruction Task Force whose main focus is on building the capacity of the Afghan National Army in Oruzgan Province.



An Aussie Chinook delivers supplies



Lining up the pieces

## MABEY-JOHNSON BRIDGES

The Mabey-Johnson bridges built by Combat Team Dagger were modular, pre-fabricated truss bridges of steel construction. They are designed to replace damaged bridges or provide a bridging capability where none existed before. All types of traffic, from military tracked vehicles to civilian vehicles with low ground clearances can use them.

Mabey-Johnson bridges derive their origins from the Bailey bridge concept familiar to Aussie soldiers since WWII, with modular transoms, but steel rather than timber decks.

Like a giant mechano set, the bridges are bolted together from sections and constructed on the road leading to the gap to be bridged, then pushed over the gap on rollers. They can span up to 61m and have a lane width of 4.2m. Wider spans are possible by using either fixed or floating supports.



A proud team atop a completed bridge

# AUSSIE GUNNERS PULL THEIR WEIGHT IN AFGHANISTAN



Australian gunners at FOB Kajaki in Helmand Province. (Left-right) Gunnery Brodie Basterfield and Chris Maroschek, gun detachment commander Sergeant Bryce Watson, Gunner Damien Chatterton, troop sergeant major and gun line section commander Warrant Officer Class Two Nathan Cole, Bombardier Lance Newell and Gunner Adrian Broadhead.



Gunner Brodie Basterfield and Bombardier Lance Newell clean and inspect an L118 Light Gun.



Gunner Brodie Basterfield with a British L118 Light Gun at Forward Operating Base Kajaki.



Lance Bombardier Tim Findlay transfers ammunition boxes to the firing point.

Australian artillery gunners fired more than 140 fire missions and 2500 artillery shells in the first deployment of Australian artillerymen in their primary role since ADF operations ceased in Vietnam in 1972. Sixteen 'gunners' from the Darwin-based 8/12 Medium Regiment provided vital fire support to the International Security Assistance Force (ISAF) and Afghan National Army troops in Helmand Province as attachments to the British Army's task force in Afghanistan.

PICS ABLE SEAMAN PAUL BERRY

The Aussie gunners served with the British 7<sup>th</sup> Regiment, Royal Horse Artillery, providing accurate and timely artillery fire as part of the wider Task Force Helmand organisation from March to October this year.

Before their deployment the gunners completed six months of training in the UK to familiarise themselves with the 105mm L118 Light Gun, a similar weapon to the ADF's L119 Hamel Gun.

For the Royal Australian Artillery, it has been a long time since a 'fire mission' was called in the heat of battle. From Vietnam to today, Australian gunners have hoped for an opportunity to test their skills.

Lance Bombardier Tim Findlay is one of those soldiers for whom the dream of deploying in his primary role has come true, with the 23-year-old from Kingaroy in Queensland, seeing action on the gun line in Helmand.

"It's a great experience, completely different from anything I've done before," Lance Bombardier Findlay said.

Having left Australia with 15 other soldiers from the 8<sup>th</sup>/12<sup>th</sup> Medium Regiment for the UK in October 2007, Lance Bombardier Findlay trained for six months with the 7<sup>th</sup> Parachute Regiment Royal Horse Artillery before deploying to Afghanistan with the British regiment to provide indirect fire support to the International Security Assistance Force.

"In the UK we were exposed to really good lead-up training, much different to what we've done in the past in Australia," Lance Bombardier Findlay said.

"The instructors had come from Operation Herrick 4 and passed on their knowledge, teaching from experience.

"The biggest highlight of this experience was my first fire mission. We could hear the contact coming down and we were requested to direct fire onto targets radioed through.

"It was awesome to hear the relief in the voices of those on the other end after our fire-mission's success," he said.

Lance Bombardier Findlay was looking forward to finally getting home to see his fiancé who he hadn't seen for 12 months.

The deployment of Australian artillery is conducted under a bilateral arrangement between Australia and the UK aimed at enhancing the training and experience of Australian gunners.



Gunner Nathan Wallace prepares rounds during a fire mission in support of coalition forces under attack.



Commander 1st Division Major General Richard Wilson inspects gunners from 105 Medium Battery during their farewell parade in Brisbane.

## BRISBANE'S GUNNERS STEP UP

WORDS CAPTAIN ALASTAIR MCPHERSON  
PIC WARRANT OFFICER CLASS 2 GRAHAM MCBEAN

**Gunners from Brisbane's 1<sup>st</sup> Field Regiment arrived in Northern Ireland in October to start six months of intensive training before they deploy with Task Force Helmand, Afghanistan.**

Fifteen artillerymen from 105 Field Battery will train and deploy with 40<sup>th</sup> Regiment Royal Artillery, The Lowland Gunners, currently stationed in Belfast, Northern Ireland on what will be the third rotation of Australian artillerymen providing vital fire support to ISAF and Afghan National Army troops in Helmand Province.

The soldiers were farewelled from Brisbane before their unit, family and friends at a parade addressed by Commander 1<sup>st</sup> Division Major General Richard Wilson.

Contingent commander Lieutenant Khalid El Khaligi proudly presented his soldiers at the historic event that marks the first time that 1<sup>st</sup> Field Regiment

gunners will deploy on operational service to fire artillery since Vietnam.

Bombardier Travis Whittaker, who has been in the army for eight years, was looking forward to going to Northern Ireland and to Afghanistan.

"I'm very excited about this deployment. It's been a long time since gunners have deployed to do this job so it's very exciting. It will be a great experience," he said.

Lieutenant El Khaligi said it was an important time for the soldiers and it was a great opportunity to train with other Commonwealth nations, especially the British Army.

"Based on their experience – as they have had guns in Afghanistan for a couple of years now – we can bring that experience back and expand upon the skills and knowledge we already have," he said.

"We have already integrated the lessons learnt by the first rotation into our training – so, we are ready."

In late March 2008, 16 Gunners from Darwin's 8<sup>th</sup>/12<sup>th</sup> Medium Regiment were embedded with the British 7<sup>th</sup> Regiment Royal Horse Artillery in Afghanistan at various forward operating bases and were recently replaced by Rotation 2 from Townsville's 4<sup>th</sup> Field Regiment.

Commander of Brisbane's 7<sup>th</sup> Brigade Brigadier Steve Day praised the commitment of Australian gunners and highlighted the high level of support from their families.

"Australian gunners have proven their skills, standing side by side with their UK mates in Afghanistan, and the 15 gunners from 1<sup>st</sup> Field Regiment will do the same," Brigadier Day said.

"They will undertake an extremely demanding and dangerous job in some of the harshest and most austere operating environments, virtually living beside their guns and required to react at very short notice to fire missions at any time of the day or night.

"It is a huge effort on their behalf and an enormous commitment from their families that will help enhance 7 Brigade's offensive support capability."

Deployment on Task Force Helmand, which involves six months of build-up and training in Northern Ireland, will see the gunners away from home for about 13 months.

Suz El Khaligi, Lieutenant Khaligi's wife, admitted that she was concerned about the distance but not about her husband's security.

"I'm not worried about his safety in any way. I know the guys have been training really hard and he's really excited and confident," she said.

"The distance will be the hardest part, but I'll be very busy in my final year at university next year and will get heaps of support from family while he's away."

# LONG TIME COMING

Private David Elkington Fisher of the Special Air Service Regiment fell from a rope beneath a Royal Australian Air Force helicopter during a 'hot extraction' of his patrol on 27 September 1969. It is now known that Private Fisher died as a result of the fall and was hastily buried by enemy soldiers who discovered his body.

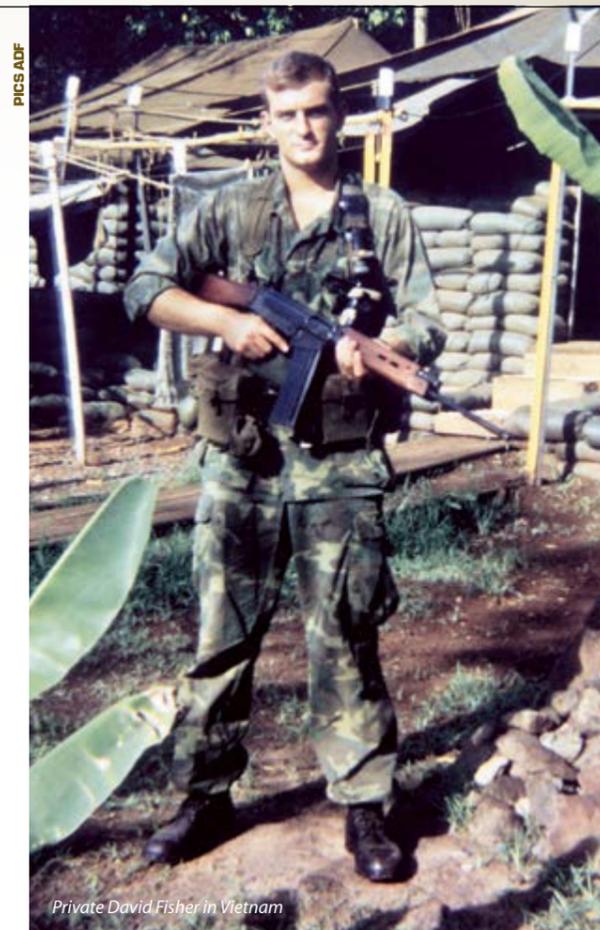
Thirty-nine years after he was lost on operations, the remains of Private Fisher were found and recovered in the Cam My District of Vietnam where they were exhumed by an Australian-led archaeological team.

He is the fourth and last Australian soldier recorded as missing in action during the Vietnam War to be located and returned to Australia for burial.

His remains arrived at RAAF Base Richmond in Sydney in October, aboard an RAAF C-130 Hercules, accompanied by members of his family, the Minister for Defence Science and Personnel Warren Snowdon and Special Operations Commander Major General Timothy McOwan.

A 'ramp ceremony' was held at Richmond, where Private Fisher's casket was carried by an honour guard of current-serving SASR members, before an honour guard comprising SASR veterans and commandos from 4RAR (Cdo).

Private Fisher was buried with full military honours at Macquarie Park Cemetery, North Ryde, NSW on 14 October.



Private David Fisher in Vietnam



Working to recover Private Fisher's remains



Private Fisher's dog tag



Private Fisher's repatriation

# BOOTS ON THE GROUND

THE FOLLY OF AN  
AFV-BASED FORCE

"It was not a miracle. It was the infantry. The plan had called for the air and naval bombardments, followed by tanks and dozers to blast a path through the exits so that the infantry could march up the draws and engage the enemy. But the plan had failed. Utterly and completely failed. As is almost always the case in war, it was [now] up to the infantry."

*American historian Stephen Ambrose on the Normandy invasion*

WORDS SCOTT J. WINSLOW PICS SCOTT J. WINSLOW AND US ARMY

PFC Kevin L White, 2nd Bn, 325th AIR  
supports police in Tal Afar, Iraq  
Pic PFC James Wilt

# M

Military strategists have heralded the obsolescence of light infantry forces for decades,<sup>1</sup> and some have even called for them to be reformed into motorised or light mechanised infantry formations. Most of these opinions are based on the fear of the casualties that unsupported light infantry can sustain in combat against a well-equipped combined force of infantry and armour, dating back to when the soviet rifle and motorised divisions were fed into the German Panzer meat-grinder.

According to the experts, combat has either become too lethal for dismounted infantry to survive, or too complex for them to be effective. Such claims are misleading, in my opinion, and these people are missing the point. There is no 'one size fits all' solution in modern conflict.

Let's face it, ever since the Turkish siege of Constantinople in 1453, the projectile has gained the upper hand over protection. Yet, in the face of evidence to the contrary,<sup>2</sup> some military leaders tend too heavily towards a protected, hardened or armoured force, to the detriment of the basics.

Despite the dangers, nothing has eliminated the need for infantry. So, how can the answer to the problem be more light armour? More wheeled armoured vehicles that can speed along at 70km/hr or more won't help, because you can't outrun a passive infrared sensor linked to a multi-array explosively formed penetrator<sup>3</sup> with a velocity of up to 2000m/sec.

Lieutenant General Peter Leahy (in a speech published in CONTACT issue #17) argues "...I want every soldier in the combat force, including combat support and combat service support to be seated in an AFV (armoured fighting vehicle) as they manoeuvre in the battle space." I disagree with what is implied in this statement. To do so is surely a tacit admission that the Australian Army of the future is moving too far away from the basics. Such a change will find the Australian Army better constructed for peacekeeping duties in East Timor than for close combat around the globe. It would be a travesty if this were to be another step toward aligning Australia's military status with that of Luxembourg or Iceland, especially given Australia's tradition of military excellence as displayed in Damascus, Tobruk, Long Tan and, currently, Afghanistan.

In this article I will endeavour to show, through universal lessons learned in the Global War on Terror and my own personal experience, the perennial value of light infantry and the amazing capabilities of an aggressive, intelligent and adaptive combined-arms force, built around the basic foot soldier – the infantry.

An armoured fighting vehicle isn't a tank. And it sure isn't infantry. It also isn't as capable at either mission. Whether it's a Bradley-style heavy AFV, or a LAV-style wheeled AFV, an armoured fighting vehicle

is not an effective blanket solution – it is a compromise on capabilities for the sake of uniformity and cost efficiency.

Until their experience in Afghanistan proved the worth of a combined force of highly trained light infantry with supporting heavy tanks and light AFVs, the Canadian Army had planned to scrap its Leopard series of MBTs (main battle tanks) in favour of a Stryker or LAV III wheeled AFV variant. An excellent article on the subject by Dr Bob Bergen of the Canadian Defense and Foreign Affairs Institute can be found at [www.cdfai.org](http://www.cdfai.org) – the truth of which can be found in every stage of the current war in Iraq, and as demonstrated by complications experienced by US and Coalition forces.

It started with the insurgency's switch to IEDs and the US military's 'up-armoured' response. Then came platter charges and, even later, EFPs (explosively formed projectiles), and the electronic-countermeasure response. The enemy even found a way to destroy the Abrams MBT and the Bradley AFV, with deep-buried IEDs.

These developments serve to make vehicle movement a risky proposition. In such situations (in which, arguably, much combat in the near future will be fought), a ground-combat or occupation strategy based mainly on the employment of mounted or motorised infantry is deeply flawed.

The use of armoured vehicles can actually hinder tactical mobility at many

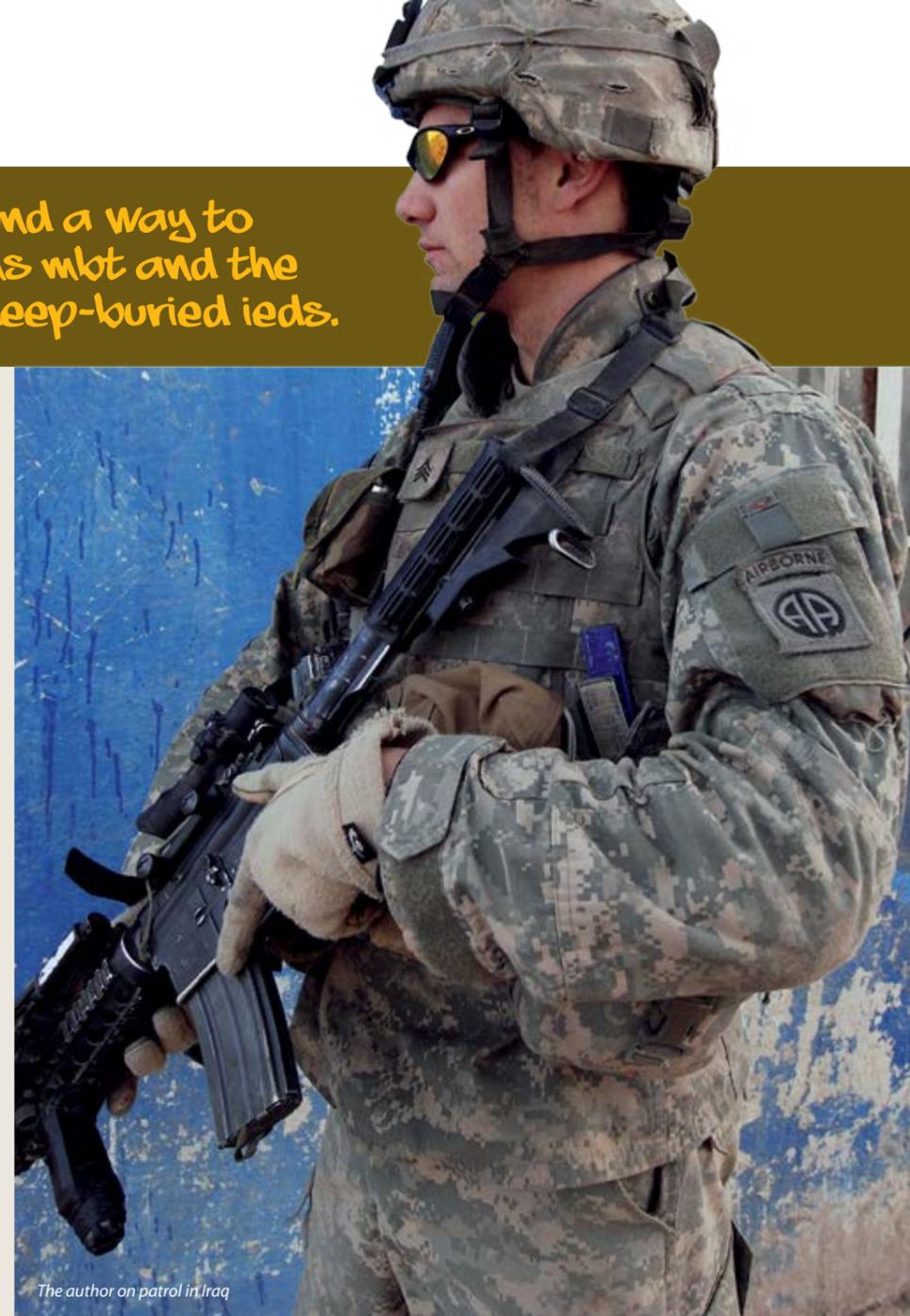
the enemy even found a way to destroy the abrams mbt and the bradley afv, with deep-buried ieds.

levels. A transition to a 'mounted first' infantry structure can restrict the way combat power is deployed across an area of responsibility, which can create a disadvantage when dealing with an insurgency and interacting with civilians.

I witnessed such problems first hand in the Sha'ab, Ur, and Sadr City neighbourhoods of north-eastern Baghdad from January 2007 to March 2008 while serving with the 2<sup>nd</sup> Battalion, 325<sup>th</sup> Airborne Infantry Regiment.

Restricted (for the most part) to occupying two outposts in the far-western part of our sector, we created a legion of problems for ourselves, a couple of which I will mention. First, a building large enough to house supplies, weapons, equipment and vehicles for more than 400 men makes for an easy target for even the most inept insurgent mortar team. Second, in order to have an effective and timely presence, we almost always forced ourselves to patrol while mounted because of the great distances between our outposts and our assigned company and platoon sectors.

By contrast, while in Mosul and Tal Afar with the same unit in 2005, we took a different, and in my opinion, more tactically sound approach to controlling our battlespace. By placing each company (minus Headquarters Company) in combat outposts spread across our battalion sector, we did not face any of the problems we were to encounter later in 2007.



The author on patrol in Iraq



Baghdad – Cop Callahan indirect attack – Pic Sgt Mike Pryor



IED aftermath



Patrolling on narrow streets



Hidden launcher





Result of an explosively formed projectile on 'bullet-proof' glass

### Author Biography

Scott James Winslow was born in Perth, Western Australia. He served in the US Army with the 2<sup>nd</sup> Battalion, 325<sup>th</sup> Airborne Infantry Regiment (2<sup>nd</sup> Brigade, 82<sup>nd</sup> Airborne Division). He has served as a rifleman, medium machinegun crewmember, radioman, rifle-team leader and rifle-squad leader, and spent two years in Iraq.

In 2007, while escorting an Australian senior non-commissioned officer in Baghdad, Scott Winslow was asked what the hell an Australian was doing in the US Army. At this time he would like to apologise for not having a better answer than the simple shrug he offered.

specifically, is culture – military culture and unit culture. This is often overlooked and under-rated and, mark my words, the US Army's current attempts at erasing unit-distinctive uniform items and practices, is ill conceived and will backfire.

Culture – or as some call it, esprit de corps – is hugely important in building an effective fighting force. Yet, even on active duty there are large culture differences between different branches of the military, down through division level and even between units. Culture can be a very good thing when you have it – and very bad when it's missing or weakened.

Before the invasion of Iraq in 2003, many combat-support units never thought they would hear a shot fired. But the relatively small number of combat soldiers in the US Army almost guarantees some exposure to combat for most soldiers in a large-scale fight, especially a counter-insurgency scenario. The differences between these soldiers and other units is not just the training, it's the culture.

The root of many problems, especially in the US Army, lies in the reduction-in-force policies of the early 1990s when the US Army was reduced from 20 combat divisions to just 10. These problems are further compounded by the use of Reserve and National Guard units in roles for which they are not suited, as they lack the same level and frequency of training that active-duty combat-arms units possess. On-the-job training does not lend itself well to high-tempo operations.

Throw in the stop-gap measures of using non combat-arms<sup>4</sup> units in roles they are not trained to fulfil, and you have an even bigger problem – especially if they are given operational command of a sector.

The Russians discovered in Grozny that overreliance on armoured vehicles in urban combat is a recipe for losing them. The United States supposedly learned a lesson when they engulfed the Serbian army with airstrikes, only to have the majority escape intact.

Both should realise by now, there's no substitute for boots on the ground.

In my opinion, the individual infantryman on the ground has never been more important. In today's armed conflicts, situational awareness, being able to readily interact with civilians on the battlefield, and the ability to go anywhere at anytime, no matter the terrain, are crucial skills that better allow for rapid adaptation in the battlefield, more complete understanding of the enemy and rapid implementation of new skill sets.

With today's technology, the dismounted infantryman remains a highly lethal and, most importantly, a highly mobile asset that will continue to be the focus of ground combat for years to come.

- 1 Major General Robert H Scales Jr (statement to senate armed forces committee found at [www.potomac institute.org/onthehill/ Scales\\_SASC\\_041707.pdf](http://www.potomac institute.org/onthehill/ Scales_SASC_041707.pdf)), Lieutenant General Peter Leahy (CONTACT #17), Major General J.F.C. Fuller
- 2 William S Lind, ([www.military.com/NewContent/0,13190,Lind\\_081303,00.html](http://www.military.com/NewContent/0,13190,Lind_081303,00.html)), Vincent J Goulding, Jr ([www.carlisle.army.mil/usawc/Parameters/00winter/goulding.htm](http://www.carlisle.army.mil/usawc/Parameters/00winter/goulding.htm))
- 3 A good explanation of this weapon can be found at [www.globalsecurity.org/military/systems/munitions/bullets2-shaped-charge.htm](http://www.globalsecurity.org/military/systems/munitions/bullets2-shaped-charge.htm)
- 4 Traditional combat arms branches are infantry, artillery, armour and cavalry
- 5 Soldier Of Fortune magazine (unsure of exact issue)
- 6 Example articles on Blackwater in Baghdad ([news.bbc.co.uk/1/hi/world/middle\\_east/7003473.stm](http://news.bbc.co.uk/1/hi/world/middle_east/7003473.stm)) and USMC in Afghanistan ([www.marinecorpstimes.com/news/2007/03/marine\\_marsoc\\_expelled070330/](http://www.marinecorpstimes.com/news/2007/03/marine_marsoc_expelled070330/)) ([news.bbc.co.uk/2/hi/south\\_asia/6636343.stm](http://news.bbc.co.uk/2/hi/south_asia/6636343.stm))
- 7 HMMWV: High Mobility Multipurpose Wheeled Vehicle



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# DIVERS BELOW!

**T**he Royal Australian Navy's Clearance Diving and Mine Countermeasure Task Group descended on Jervis Bay, New South Wales, in October to conduct the Fleet Training Activity Dugong '08.

HMA Ships Gascoyne and Diamantina, along with Clearance Diving Teams One and Four took part in the annual training activity aimed at refining the RAN's mine-hunting procedures and techniques.

As an integrated force, they were tasked to search the waters of Jervis Bay for simulated mines and implement measures to dispose of them safely and efficiently.

Commander of the Mine Warfare and Clearance Diving Task Group Commander Dean Schopen said the principle role of mine hunters is to keep Australia's trade ports and waterways free from the threat of mines.

"Training activities such as Dugong are essential to maintain proficiency, standards and safety in all core mine-warfare and clearance diving operations," he said.

The Task Group used high-frequency sonar to search for, detect and classify mine-like objects during the exercise and, once detected, clearance divers or a remote-controlled mine-disposal vehicle were used to identify and if necessary, neutralise the 'mines'.

Royal New Zealand Navy's REMUS autonomous underwater vehicles, fitted with side-scan sonar, were also used to identify obstacles in very shallow water, with clearance divers then sent in to conduct searches of the same areas in order to re-acquire and identify mines.

The clearance divers also conducted more traditional harbour search and clearance operations in a combined mission with divers from the United States Navy.

Seaman Brodie Lumberry and Seaman Istvan Dobo.



## CDs HIT THE GOGGLE BOX

**C**ommander Australian Fleet Rear Admiral Nigel Coates helped launch a new television documentary series showcasing the Navy's clearance divers.

'Navy Divers' airing on ABC at 8.30pm Tuesdays gives viewers a rare insight into the gruelling selection course that clearance diver aspirants must survive in order to join the ranks of one of the Navy's most elite and mysterious units.

The documentary series follows the story of a group of young trainees as they face the physical and mental challenges of selection to become a clearance diver.

"The role of clearance divers is necessarily secretive and this is a rare chance for the Australian public to see the elite level of training that divers must undertake," Rear Admiral Coates said at the show's launch.

**CLEARANCE DIVERS UNDERTAKE ALL MILITARY DIVING TASKS TO A DEPTH OF 54M, HOWEVER INITIATIVES ARE UNDERWAY TO CONDUCT DIVING TO 90M.**

*Below: Seaman Todd Adamson (foreground), Australian Clearance Diving Team – Four, conducts a clandestine beach clearance with Able Seaman Gordon Mathoi. Both are wearing Dräger Lar VI oxygen rebreathers and using M4 automatic assault rifles.*

PICS ABLE SEAMAN EVAN MURPHY AND PETTY OFFICER DAMIAN PAWLENKO



Seaman Todd Adamson (centre), Australian Clearance Diving Team – Four, is assisted by Seaman Paul Renfree (right) and Able Seaman Gordon Mathoi to don a MK17 Kirby Morgan helmet and surface-supply breathing apparatus, worn when conducting long-duration battle-damage repairs.



Seaman Brodie Lumberry.



# WHAT IS A CLEARANCE DIVER?

## JOB DETAILS

**Clearance divers (CDs)** – a male-only employment category – are the Australian Defence Forces' specialist divers. CD tasks include, but are not limited to, the rendering safe and disposal of all ordnance, including missiles, artillery projectiles and air-delivered munitions in ships, on land and underwater. Also includes dealing with improvised explosive devices such as letter bombs within HMA ships and establishments and the demolition of maritime assets.

Clearance divers undertake all military diving tasks to a depth of 54m, however initiatives are underway to conduct diving to 90m.

During his career, a clearance diver will be rotated through the following operational areas:

### Huon class Mine Hunter Coastal (MHC)

**Mine Counter Measures.** Activities include diving using highly specialised, self-contained mixed gas equipment for mine counter measures tasks, and focuses on the identification and disposal of sea mines. SCUBA diving is conducted for underwater maintenance and underwater demolition.

### Clearance Diving Teams

a. **Maritime Tactical Operations.** Duties include diving on pure oxygen and mixed gas equipment. This element trains in small arms, escape and evasion, combat survival and insertion techniques. Tasks vary widely and can include anything from amphibious operations to ordnance disposal in hard-to-reach targets.

b. **Mine Counter Measures.** Focuses on the location, identification, rendering safe and disposal of underwater ordnance in areas where conventional mine-hunting methods are not feasible.

c. **Underwater Battle Damage Repair.** Diving on air equipment, both self-contained and surface-supplied, for the maintenance and repair of ships' underwater fittings and harbour installations and underwater ranges. This area trains in skills such as underwater welding and salvage techniques.

### Tactical Assault Group – East (TAG-E)

TAG(E) is a joint 4<sup>th</sup> Battalion Royal Australian Regiment (Commando) sub-unit within Special Operations Command comprising personnel primarily from 4RAR (Cdo). TAG(E) is structured to conduct offensive domestic counter terrorist (CT) operations focusing on incident resolution and the recovery of hostages. It maintains a short-notice capability to conduct military operations beyond the scope of State and Federal police services. These aims are achieved through various highly specialised skill sets, niche capabilities and supporting ADF units.

### Support Roles

Service at the RAN Diving School in support of training operations as well as various administrative positions within naval establishments throughout Australia.

During all postings the clearance diver will be required to carry out seamanship and ships' husbandry duties in addition to diving-related duties.

### Pay & Allowances

Clearance diving is classified as a Pay Group 7 occupation.

Salary (excluding allowances) on completion of employment training is \$49,476 per year.

Clearance Divers Allowance ranges between \$9,670 to \$16,761 per year depending on posting.

Service Allowance of \$10,672 and Uniform Allowance of \$419 per year also apply.

**Total = \$70k+**

Salary will increase based on rank and years of service. Pay group may increase with additional skills and advanced courses.



Seaman Todd Adamson and Able Seaman Gordon Mathoi, Australian Clearance Diving Team – Four, conduct a clandestine beach clearance.

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All Aussie service personnel will soon be driving Mercedes-Benz

### G-WAGON

Obviously, the biggest news item to come out of Land Warfare Conference this year was the announcement that Mercedes-Benz has won Project Overlander Phase 3, which will see 1200 4x4 and 6x6 G-Wagons replace the ubiquitous Land Rover as the basic, general-purpose fleet vehicle for the ADF.

Six different types of G-Wagon will be acquired under Land 121 with the majority going to Army units. The range will include a 4x4 general purpose station wagon, two 4x4 cargo variants, a 6x6 cab chassis, 6x6 dual cab, and a specialist 6x6 surveillance and reconnaissance vehicle.

The new vehicles will feature detachable, unit-specific modules designed for tasks including munitions transfer, field ambulances and troop carriers, reducing the need for purpose-built vehicles and increasing the logistical flexibility of the fleet.

The base vehicles will be built in Austria, then fitted with their trays or bodies by NSW company Varley, who won a \$50-million slice of the contract.

Australian's G-Wagon will be powered by a V6, 140kW diesel engine. The drive train is constant all-wheel-drive in both variants, with ABS brakes and air-conditioning as standard.

While making the contract announcement, Defence Minister Joel Fitzgibbon said that every boy or girl who dreamt of one day driving a Mercedes-Benz would now, as a soldier, sailor or airman, get that chance.

He also admitted that he was never happier than when he was spending money, and with this deal he was spending lots of it – \$350 million in fact.

### NOPTEL MARKSMANSHIP TRAINER

I think this was the most impressive piece of kit I saw all week. Essentially it's a training system for shooters, not unlike the FATS-based Weapon Training Simulation System (WTSS) everyone in the ADF is by now accustomed to. Unlike WTSS, however, Noptel is not tied to a single, expensive building, computer bank, video system and specially modified armoury of weapons. Noptel uses real weapons and 'real' targets and can be used indoors or outdoors at real-range distances up to 600m.

are fairly small and compact (no big surprise yet), but on closer inspection, they turn out to be solid, with no holes or orifices. When you put them on your head, the 'ear pieces' sit, not on, over or in your ears, but against your jaw bone in front of your ears. The sound, which is remarkably clear, is actually transmitted through your bones to your ear – hence the name.

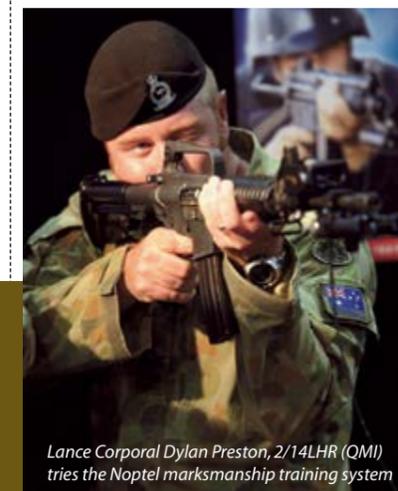
Another big advantage of this system, apart from not squashing your earlobes, is that your normal hearing is un-hindered, thus leaving you with perfect peripheral hearing.

### BBR & SBR

BBR and SBR form part of a system of blank ammunition that makes it impossible to shoot someone if a live round is accidentally chambered while training with blank ammunition (see page 34 for full rundown).



Underbelly – G-Wagon 6x6



Lance Corporal Dylan Preston, 2/14LHR (QMI) tries the Noptel marksmanship training system

# FIGHTING INNOVATION LAND WARFARE CONFERENCE



DSTO's annual Land Warfare Conference was held in Brisbane this year with all the usual trappings of a major gabfest and associated trade show.

I was there to make sure everyone who's anyone in Defence or defence industry is aware of CONTACT and the great job it does.

At least that was the excuse I used!

Like a lot of other people, I was mainly there to see the latest and greatest in big-boys' toys and scope out innovations in equipment and technology for the Aussie war fighter.

Several things caught my eye and, while I will merely dot-point a few in this article, I will endeavour to track them down for a more in-depth look in future issues.

In the mean time, here is my selection...



The functional interior of the G-Wagon (not necessarily as it will enter service with the ADF)

Not only that, but it can be used with either compressed gas (a small cylinder in the magazine, actuating a modified breach), with blank ammo or even with live ammunition. The system, which is run on a regular PC or laptop, incorporates much of the functionality of WTSS, such as aim tracking and analysis, zeroing, scoring and so on – but, in the real world under real conditions.

This system could be set up and operated by a wide range of personnel after very low-level training. It could be used to great effect for initial, low-level marksmanship principals training, right up to intensive 'killing-room' type raids.

Quite frankly, I don't think I've ever seen a more sensible, practical or cost effective training system – ever.

### BONE-CONDUCTED SOUND

Bone conduction headsets should be of interest to all those you are sick of having their earlobes crushed by radio headsets.

Looking a lot like a standard double-sided headset with integrated boom microphone, it packs a big surprise on closer inspection. The two 'ear pieces'

### K-9 AUSSIE THUNDER

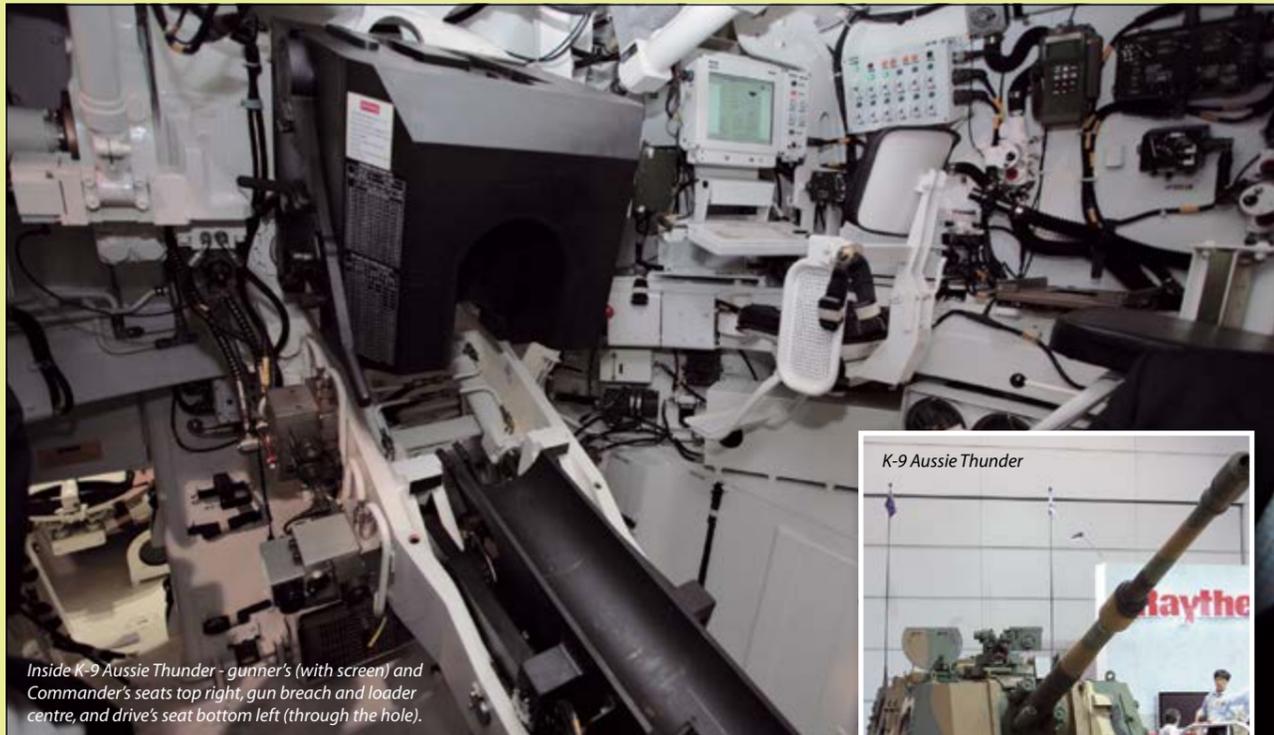
The Korean-built K-9 was impressively and prominently positioned in the 250m-long indoor display hall at Brisbane's Convention and Exhibition Centre, giving many their first, up-close look at what could soon be Australia's new self-propelled artillery platform.

Since the Australian Army doesn't yet have such a piece of equipment, this imposing monster will be a real capability jump – if we buy it.

The Dutch machine (CONTACT #14) is the other contender in the competition with a decision due about mid next year.

Back to K-9 though, and I have to say, I was impressed. It really is a monster. Recent images run in CONTACT didn't do its impressive size justice.

The 'sales pitch' I got also impressed. K-9 is a new machine, still in production. Therefore, Australian-required modifications can still be incorporated at the manufacturing stage rather than having to be bolted on or incorporated post-production. It is also (so I was told) about four tonnes lighter than the competition, which runs the same 18l V8 diesel engine.



K-9 Aussie Thunder

Inside K-9 Aussie Thunder - gunner's (with screen) and Commander's seats top right, gun breach and loader centre, and drive's seat bottom left (through the hole).

## K-9 AUSSIE THUNDER – I CAN'T WAIT TO SEE ONE OF THESE THINGS IN ACTION

Now, I'm no artillery expert and, while I did see PzH 2000 go through its impressive under-floor mechanical ballet and was left to imagine K-9's equivalent, the gun-loading system in K-9 did seem a lot more straightforward to me. The big difference between the two being that K-9's main ammo storage is head-high in the turret while PzH 2000 is at floor level. The big thing to realise (for the unaware) is that both systems are pretty much fully automatic and capable of delivering impressive firepower. In fact K-9 is even capable of delivering six bombs on the same target at exactly the same time! How? Well, by lobbing the first one very high in the air, the next a little lower and so on – until, thanks to lots of computer calculations, all six bombs come down in one very angry swarm. Raytheon personnel say that while they have actually achieved multiple-round simultaneous-impact (MRSI) fire missions of six rounds, seven or maybe eight could be possible. Since the project requirement calls for five to seven bombs landing within a 10-second window, I guess you could say K-9 has delivered on that criteria in spades.

### CAMOUFLAGED FLEXIBLE SOLAR PANELS

Still in development, these panels are made from liquid-filled plastic sandwiches. Cells, each measuring about 8 x 2cm and a couple of mm thick (visual guesstimates), are wired in neat little bunches to make electrically viable panels that feel not unlike a stiff blanket. However, they can also be randomly arranged in irregular patches of plastic cloth to make up – a cam net! The resulting cam net has a dark-green side and a sandy-coloured side, just like the real thing. Each liquid-filled cell can even have its liquid colour-tuned to blend with the cam pattern around it.

While this technology isn't quite as

The 'sales man' put K-9's capability in stark perspective for me when he claimed that one K-9 can deliver more bombs in one minute than a whole battery (six guns) of regular artillery currently serving in the Australian Army.

I can't wait to see one of these things in action.

efficient at converting sunlight to electricity as 'standard' silicone/glass panels, its flexibility, durability and low weight make it ideal for a million-and-one applications in the field – charging radios, GPS, mobile phones or any other small devices that would be happy to receive a trickle charge.

Unlike 'standard' silicone/glass panels, DyeSol's technology is actually 'tuned' to be at its most efficient in lower than direct sunlight. Also, if one cell is damaged or sitting in shade, the output of the larger panel is only proportionally affected, not interrupted.

Being a relatively new product and with some way to go to maturity, it is easy to imagine myriad uses for this innovation from DyeSol – uniforms that generate their own energy for cooling, a radio pack that recharges the radio it houses, a trickle charger for your mobile phone or, how about a camouflage blanket to cover a whole vehicle – keeping the sun off the bodywork while using that very same sun to recharge the vehicle's batteries (for example, on an FFR (fitted for radio) Land Rover operating in the same spot for days without moving).

**THERE'S NO SUCH THING AS THE MIDDLE OF NOWHERE.**

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# Allies push out

Pics Corporal Neil Ruskin

In the months before they came home, Reconstruction Task Force 4 expanded its operations north from its base at Kamp Holland, building a series of patrol bases for use by ISAF and Afghan forces.

RTF4, now replaced by the Mentoring and Reconstruction Task Force 1 (MRTF1), operated regularly north of Taini Kowt, an area of great strategic significance to the Taliban in Oruzgan Province. Australia's Combat Team Hammer was part of a major RTF4 push into the former insurgent heartland to the north of the regional capital.

The terrain, typical of the Baluchi Valley, is predominantly vegetated with crop fields centred along the Tiri Rud River, which is a major obstacle to movement and provides a sporadic network of irrigation channels that are both a source of cover and obstacles for foot movement.

The general area is dominated by surrounding mountain ranges running along the east and western sides of the Tiri Rud River.

Access to the area is mainly by roads that are often observed and mined by the Taliban.

ISAF's work, in an area of huge strategic importance to the Taliban, is helping to extend the influence of the Afghan government into the formerly lawless Oruzgan Province. The patrol bases and police stations being built for the Afghan National Security Forces also allow the government to provide security for its citizens, which in turn sets the conditions for development in terms of schools and health centres.

Australia's new MRTF1 (as the RTFs before it) works with the Netherlands Provincial Reconstruction Team as part of the NATO-led International Security Assistance Force.

The Australians have a clearly defined role to work on reconstruction, improvement of provincial infrastructure and community-based projects. They also provide trade training to the local population and military-engineer training to the Afghan National Army.

Australia's MRTF1 is separate from its Special Operations Task Group, operating in the same area but with a very different mission.



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- 1 Private Shane Carvagnino and a Dutch soldier conduct patrols in preparation to hand over Patrol Base Qudus, which was built by the Reconstruction Task Force in Baluchi, Afghanistan.
- 2 Corporal Lance Dennis and a Dutch soldier check navigation during a patrol in preparation to hand over Patrol Base Qudus.
- 3 Private Neil O'Farrell and a soldier from the Afghan National Army stand ready for action at a vehicle check point in Baluchi.
- 4 Dutch and Australian soldiers take a break from patrolling near Patrol Base Qudu in Baluchi, Afghanistan.
- 5 An Afghan soldier stands ready to take over a vehicle check point from Australian soldiers in Baluchi.
- 6 Corporal Lance Dennis and Private Neil O'Farrell hand over a vehicle check point to soldiers from the Afghan National Army in Baluchi.
- 7 Private Neil O'Farrell watches over an Afghan National Army vehicle check point in Baluchi, with Corporal Lance Dennis.

# S

o, you can imagine the howls of laughter when, while walking my fully laden pack to Charlie Coy HQ only hours before boarding the Qantas 747 bound for Somalia, both my shoulder straps tore off in unison.

In a split second, I went from euphoria about finally getting to play the grand final we had all trained so hard for, to absolute panic and despair. I must have looked like a three-year-old who had dropped his ice cream cone in a dog turd.

I stood there for ages, staring down at the now-useless pack I had lovingly squared away for so many weeks, fully expecting it to serve me well for the duration.

Rock patted me on the shoulder and, while trying not to laugh, offered the use of his sew-it-all tool when we landed in-country – as if that was somehow going to make me feel better!

The reason for my panic attack was simple enough. After weeks of lectures and briefs, just hours from flying out, I (as I'm sure many of us), still couldn't fully picture operational life in Somalia. Would we patrol with our packs on our backs? Will we always wear Kevlar? Are the SPM the good guys or the bad guys? Will we be able to ring home? Why the hell am I packing my Millbank filter when the Doc said don't drink local water under any circumstances? Why don't the SSDF and the USC get along? What was the name of the parasitical worm that will bore into my feet if I walk around barefoot? Who the hell are the SNM anyway???

'Bugged if I know', was the standard answer from our direct chain of command, on just about everything in those lead-up weeks before deployment.

But, after watching all the news reports and sitting in on countless briefs sent back from Alpha Company, who were already in country, there was one piece of information we had no problem retaining – this was shaping up to be the real deal.

Called a platoon orientation patrol, 3-2's first exposure to 'Down Town' came just two days after stepping off the Yank Herky Bird at Baidoa, and was conducted from two Mogs while fully kitted out in vests and Kevlar pots.

I also vaguely remember having someone from Alpha Company tagging along, pointing out landmarks such as Murder Ally, Sniper Lane, the camel markets and the Coke factory. Alpha had been the first company on the ground and had well and truly learnt their bearings the hard way.

If you asked anybody now, who had served with me back then, what they remembered most (if anything) about 'Shinns', it would probably be that I was an absolute fool when it came to my gear. I scrubbed new pouches and kit to get rid of the shine, anything not cammed was hit with paint, pouch-belt clips were wired down, straps were double taped and then the tape painted. It bordered on obsessive compulsive disorder, I'm sure.

# THE REAL DEAL

WORDS AJ SHINNER  
PICS WO2 TERRY DEX AND  
SHINNER COLLECTION

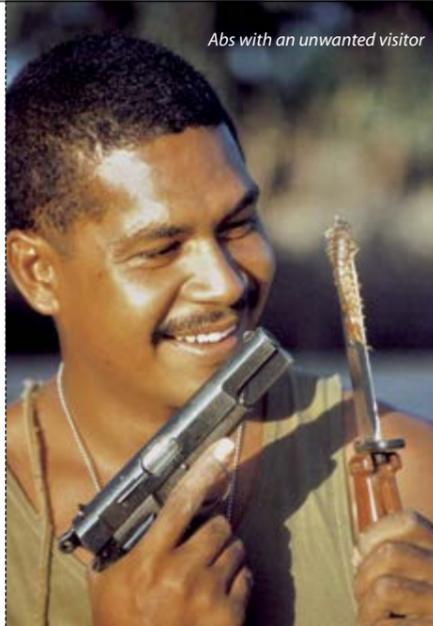
Even before we'd cleared the gate on that first day, we too were learning and adapting to our new surroundings.

This was not High Range or Tully. No longer was it the mere illusion of facing out on the trucks just to keep sarge and the CSM happy. But, we learnt very quickly that kneeling, fully kitted out, on an open flatbed (that wasn't armoured or equipped with centre seating) for three hours was painful, awkward and not much fun.

With our little excursion almost complete, legs cramping and arms numb, we headed back toward the airfield.

The marketplace ran off to the left of the main road, just up from the roundabout, and the slight downhill run was crammed with stalls and crowds of people.

About 100 metres short of the roundabout, an automatic burst of gunfire cracked in front of our lead truck. A spilt



Abs with an unwanted visitor

I must digress at this point for a second and say that there was a constant light-hearted rivalry between myself – a former section scout turned gunner – and the current scouts in 3-2 Bravo.

Polly, Gus and myself were great mates and, even though I haven't seen or spoken to either of them in many years, I still, and will always, consider them brothers.

But on that particular day, I was chuffed that a gunner had gotten the jump on them and led the way.

It was a great bragging point, a definite chalk mark on the score board to me and a sore point for them, which cranked the cycle of pay backs, pranks and antics between the three of us up an extra notch or two.

After the slow start, I was now unsuccessfully attempting to stay level with the other section across the road,

Weeks later, in full-platoon strength, we left via the front gate of the airfield in a couple of Mogs and 6X Rovers heading down over the bridge towards the police station.

By now, centre seating was the norm, our Kevlar pots weren't required on all jobs and we felt we had a pretty good handle on the way things worked in Baidoa.

Don't bother asking me where we were going or why that day because for the life of me I can't remember. What I do remember is the repeated loud crack thumps of rifle rounds passing close over our heads as our vehicle cleared the far side of the bridge.

After launching myself from the side of the Rover, I found myself lying in an open sewerage pit beside the road, covered in shit, with Tom lying on top of me. For the briefest of moments I wondered what the

it was still bloody hot. Within minutes, running in Kevlar vests with our weapons firmly in our shoulders, we were very quickly knackered.

It was about this time that some of us started to suspect that the steeple chases through the alleys and back streets that inevitably followed these types of contacts were a total waste of time and would one day lead us into strife.

During the chase, 3-2 Bravo temporarily halted in a narrow alley that ran off one of the wider main streets. Up ahead, at the other end of the alley, I heard someone yell what we were all thinking – "This is bullshit!"

The quick break gave us a chance to wipe the sweat from our eyes, as the boss and Tom's section up front got their bearings and attempted to track the fleeing enemy.

While covering the rear, we all caught our

patrol maps to work out where the hell the Boss and Tom were leading us.

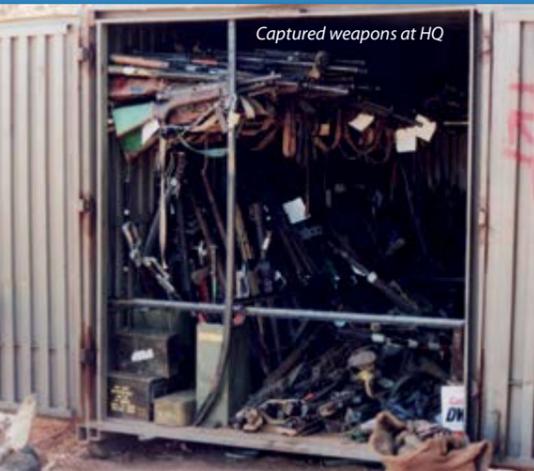
Finally, Mac cracked and, while trying not to laugh, hurled a stick and a stream of obscenities at Gus, as several shots were fired in the next street.

Snapping back into soldier mode, we collapsed down to the other end of the alley to see the tail end of Billy's section heading into a narrow, dry creek-line between the buildings.

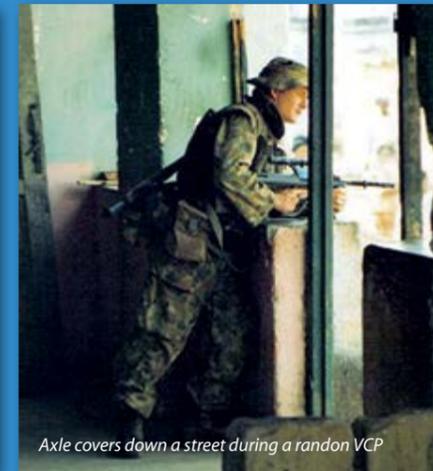
Unknown to us at the time, Tom's scout group had been fired on as they gave chase through the creek-line.

After piecing the incident together later, it's highly probable that the gunman who fired on 3-2 Alpha's scout wasn't even the same offender from the original contact, but more likely someone who had come out to see what all the fuss was about.

If the whole incident had been filmed



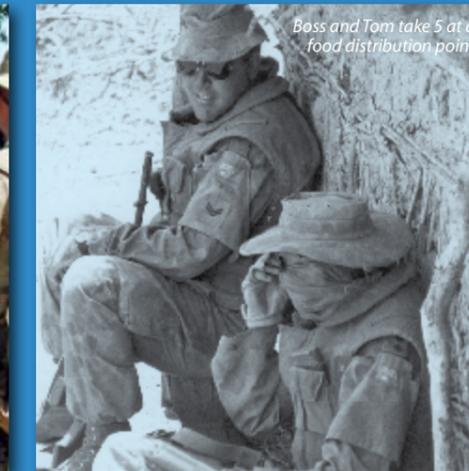
Captured weapons at HQ



Axle covers down a street during a random VCP



Call Sign 3-2 Bravo take prisoners during a sweep



Boss and Tom take 5 at a food distribution point



Smurf and Axle organising a food distribution point

second before I was thrown into the back of the Mog's cab, I looked forward to see the crowd magically part, revealing a young male with an RPD in the middle of the road, firing a sustained burst off the hip into a shopfront.

We'll never know whether we had stumbled onto a family feud, a personal vendetta or a simple robbery gone wrong, but it was plain to see that our arrival was very unexpected.

Admittedly, this story would be much more entertaining if our driver had simply gunned the engine and dispatched the now wide-eyed gunman just 25 metres in front of us. But facing a belt-fed automatic weapon completely unprotected in the cab, the driver chose to forego boozing bragging rights at being the only driver in transport platoon with a confirmed kill and opted instead for the brakes.

After hitting the back of the cab and then literally rolling off the tailgate onto a pile of arms, legs and rifles, I scrambled to the right

and found a firing position in a doorway.

I screamed unintelligibly to the throng of people as I searched down my Minimi sights for the gunman who was well and truly legging it down the crowded street.

In the chaos that followed the unconventional debus drill, half of my section had ended up on the left side of the road while the scout group of Polly and Gus, Rock the section 2IC and myself, with the gun, had ended up on the right.

Our section commander Mac was screaming across the road something about needing to confirm with the boss, while I could clearly see 3-2 Alpha pepper-potting through the crowd on the left-hand side of the road.

"Bugger this", I said as I threw the Minimi back up into my shoulder and raced off, with Rock glued to my heels.

I quickly blurted out a 'BEEP BEEP', Road Runner style, as I passed the two indignant scouts, who were still down behind a street stall.

to cover them if everything went pear shaped, but slowing to dodge locals as well as attempting a glance in each doorway I passed, wasn't helping my progress.

Knowing his backyard well, and without the burden of group doctrine and tactics, the lone gunman was realistically well and truly home and hosed before we even started our pursuit.

For several minutes, we continued pepper-potting and leap-frogging down the busy street, past the roundabout, screaming at locals to clear the way.

I'd hear later that J Conway had been trying to direct a few of 3-2 Alpha's diggers on the left-hand-side of the road only to find Nalder comically struggling to cradle his rifle and the remains of his fully bombed-up webbing that had systematically disintegrated after rolling off the tailgate of the Mog and during the pursuit.

Not a very glamorous way to start our duties on Operation Solace.

## IF THE WHOLE INCIDENT HAD BEEN FILMED FROM ABOVE AND THEN SPED UP, WITH WACKY MUSIC ADDED, IT WOULD SURELY BE ELIGIBLE FOR THE BENNY HILL HALL OF FAME

hell was going on – Tom's section wasn't on our truck!

He looked down at me and for no particular or logical reason we both burst out laughing.

A double tap cracked from somewhere up the road, this time not directed specifically at us. Tom regained his composure, scanned the area and then ran off zigging and zagging up the side of the road to find his own section.

With my section, 3-2 Bravo, third in the order of march behind 3-2 Charlie and with Tom's section, 3-2 Alpha up front, the boss lead us off in hot pursuit of the gunmen or man. Even though it was only mid morning,

breath and, in turns, took a quick sip from our water bottles.

Suddenly inspired, Gus stood up from his position crouched in a doorway and prepared to entertain us with an impromptu rock show.

As the rest of us tried to blend in with the mud walls and corrugated-iron fences, Gus stood in the centre of the alley, dropped his Styre into the classic lead-guitar stance, plugged a cable into an imaginary amp, adjusted a few knobs, strummed a couple of test notes, readjusted the amp and then let rip an awesome air-guitar solo.

Our section commander, Mac, was trying to ignore Gus as he and Rock studied their

from above and then sped up, with wacky music added, it would surely be eligible for the Benny Hill Hall Of Fame.

At some point in the chaos that ensued after we entered the creek-line, I remember trying to scramble up the steep side only to place my left hand and all of my weight through a decaying goat's carcass!

Dry retching, covered in shit, goat's bits and maggots, my humour was pretty much gone at that point of what was turning out to be a two-hour steeplechase and a very average day.

The only redeeming small joy from that day is remembering J Conway, grinning from ear to ear, informing anybody who was interested on the truck ride home that he swore during the chase he'd seen Elvis staring at him from a mud-hut window.

For Call Sign 3-2, two weeks into the deployment, good guys – 0, enemy – 0, Elvis sightings – 1.

The real deal? Well, maybe not – but we definitely weren't in Kansas anymore, Toto.

# Special Forces Fitness

## Taking the Step Up

When people contact me for personalised programs, the two most common scenarios are either that they are joining the defence force, police or fire brigade and need a preparation program for passing the entry tests or they are already a serving member of the army or police and want a program to prepare them for the demands of special-forces selection and training.

Pre-enlistment fitness is relatively straightforward and, simply by performing four to five workouts a week and following some of the principles outlined in previous columns, you can achieve the required level of fitness.

Training for special-forces selection is a whole different proposition. Special-forces soldiers and tactical-unit police are the Olympic athletes of the tactical world. Like any Olympic athlete their training tends to involve multiple sessions a day, high loads and a tricky balance between doing enough to maintain superhuman levels of fitness and doing too much – getting injured or overtrained.

In this article I want to outline some of the key considerations for anyone looking to make the step up from regular service to special-forces selection.

### #1 – Build a solid base

Before you even think about SF selection you need to make sure that you've got a solid base of strength and cardiovascular fitness but, perhaps even more importantly, you need to make sure that you have good core and back strength, unrestricted joint mobility/flexibility and minimal niggling injuries. A couple of months of Crossfit and regular kettlebell workouts will generally take care of the basics.

### #2 – Training twice a day

The biggest switch you'll need to make from a basic military-fitness program to a special-forces preparation program is to move from four to five sessions a week to eight to 11 sessions a week. With this switch you'll need to make some important changes to your training.

When training up to 11 times a week, the volume of training will obviously increase, however, what you'll find is that fewer of your sessions will be conducted at 100 per cent intensity, as it's simply not possible to recover from back-to-back two-a-day sessions at high intensity. Instead, sessions will be designated as hard, medium or recovery sessions and cycled throughout the week.

Getting the balance between intensity, volume and recovery is perhaps the trickiest part of the whole equation and may be where talking to a PTI or strength and conditioning coach pays off.

### #3 – Pack-marching, running and smash sessions

Ok, I'll admit, in general I'm not a fan of long (10km+) runs, 25km pack marches or hour-long pushup workouts, but the reality is that SF selection and training is heavy on these types of training and if you tried to prepare for selection with nothing more than 2.4km runs and 20 minute circuits you are going to get buried alive on the first day.

If you want to survive selection, you should be able to knock off a 15km run or a 25km march with 40kg and not have it write you off for hours afterwards. Build up to these workouts slowly and treat them as a skills practice rather than primary conditioning methods. I suggest doing several shorter, harder



Crossfit/kettlebell sessions a week and then throw in two longer runs and two pack marches a week. If you do it right you'll be like a recent client of mine who remarked, "20km with full combat load is just another day at the office".

### #4 – Building up and backing off

To achieve elite levels of fitness, you are going to have to increase your training intensity and load over a period of three to six months. The problem is that you can't keep increasing your training load indefinitely without developing overuse injuries or getting sick from overtraining.

When putting together your program, I suggest increasing your load and intensity over three weeks, culminating in a couple of really hard workouts such as a 20km pack march, a long run and a killer Crossfit workout. Then back right off for a week. Reduce your workouts to one a day, lower the volume and intensity by

25 to 50 per cent and include more massage, stretching and swimming in your routine. Don't be concerned that you'll lose fitness, after a week off your minor aches and pains will have healed and you'll find that your fitness takes a leap forward!

### Conclusion

Preparing for special-forces selection can be a tricky balancing act and requires dedication and a tolerance for high levels of discomfort. The training isn't easy, but then, no one has ever said that joining the SAS, commandos or police tactical units was meant to be easy!

If you want to see an example of how I've applied all of these principles to a real program please email me at [fitness@octogen.com.au](mailto:fitness@octogen.com.au) and I'll send you an example of a recent program written for SF selection.



# Interview with Hunter 'Chip' Armstrong

Hunter 'Chip' Armstrong is the worlds leading authority on hopology – the study of the evolution and development of human combative behaviour. He provides this training for the United States Marine Corps, as part of their Marine Corps Martial Arts Program (MCMAP) for 2<sup>nd</sup> to 5<sup>th</sup> degree black-belts. I recently interviewed Hunter Armstrong at ADFA, during a visit to Australia to provide subject-matter-expert advise to the Military Unarmed Combat Cell.

*Welcome to Australia and thank you for the opportunity to find out about your past, what training you provide and the influences and mentors you have had the privilege of training with. Can you describe your input to the MCMAP?*

To start, I was invited to join in on the original test study that was conducted with Kilo 3-4, at Camp Pendleton. This study was conducted by then Major George Bristol. I was primarily involved with developing some of the bayonet and close-combat-behaviour training.

The package we developed, which the ICS calls Battlehand, incorporates a group of patterns utilising the bayonet. MCMAP calls these patterns the Combat Engagement Patterns, and they've become the basis of the MCMAP's second-degree black belt rank.

*You are widely regarded as a leading researcher in the science of hopology. Can you describe what hopology is?*

The formal definition of hopology is the study of the origins, patterns, relationships, and phenomenology of combative behaviours at all levels of social complexity.

A less formal but more comprehensible version is the study of the evolution and development of human combative behaviour and performance. In short, it's the study of how people fight, why they fight and how different cultures articulate that behaviour.

*Can you give some examples of how applying your knowledge of human combative systems and behaviours can help develop modern military combative systems?*

Probably the simplest and most profound use of information that we've gained from hopological study, is in the understanding of the distinction between the two main types of aggression – affective and predatory – as in hunting. Predatory combative behaviour is based on the evolution of humans as hunters.

Without going into the details of what's involved with the brain, muscular, and skeletal systems, hunting requires the hunter to be as efficient in thinking and movement as possible. A key aspect of this type of aggression is that emotion is suppressed to allow efficient thought processing to carry out the hunt. As well, the biomechanical side of the hunter is aimed at carrying out as efficient an attack as possible.

In contrast, affective aggression is tied to emotional responses including fear and anger. This type of aggression is evolutionarily useful in certain social situations for establishing social position within a group. Importantly, key aspects of the affective aggression are display posturing, verbalisation and eye contact. All of these are tied to intimidation rather than carrying out an attack.

From years of hopological field study, it became apparent over time that some human fighting systems are more oriented toward display while others are aimed specifically at making

as efficient an attack as possible. We saw that these two different types of fighting systems were primarily found in two distinct contexts, one civil and the other military or martial.

In the civil context, the two most common needs for fighting are seen in self-defense and male social hierarchy. In either situation, humans generally don't want nor need to destroy or kill their adversary. The better the individual is at ending a confrontation through intimidation, the better off both the individual and the adversary will be. And the fighting systems evolved/developed for these contexts will exhibit exactly those attributes necessary for intimidation – intimidating postures and facial expressions, vocalisation and so on.

However, in the military/martial context – that is, on the battlefield – the individual can't rely on intimidation to dominate, but must carry out the most efficient attack necessary to defeat an enemy. Here, cool cognition and efficiency of movement are the key components.

And these are the elements that we extracted for application in modern military combat systems.

*How can the principles found in classical martial arts be effectively applied in today's technology-driven battlefield? And, can the principles of the classical martial arts still hold true for the modern combatant?*

Many people in modern society tend to think that it's the weapon that does the damage. A weapon is an inanimate object with no will of its own. It is the human manipulator that makes the weapon work. And, while weapons have changed considerably over time, the humans operating them have changed very little if at all.

Historically speaking – never mind pre-historically – humans have been using weapons for at least 10,000 years.

A number of cultures around the world had the opportunity, due to circumstance and duration of time, to develop and evolve very efficient combative systems aimed at dealing with the demands of battlefield combat.

In the modern world, we tend to assume that these systems were primarily aimed at the mechanical manipulation of whatever weapon was being used. But consider that actual weapon striking is pretty limited – a sword can only be swung or thrust in a very limited number of ways.

The key difficulty in training a battlefield fighter to dominate on the battlefield is not learning the mechanics of weapon

*"Take control of the central nervous system – the neck – and you take control of an attacker" – Hunter Armstrong (pictured left)*



use, but developing in that fighter the ability to carry out those actions in the incredible stress of lethal combat. And it is in that regard that the classical battlefield traditions of combat training were specifically very capable.

For the modern soldier, the battlefield demands are still the same – he must carry out the mechanical actions of operating his weapon or weapons in the face of lethal combat.

The methodologies of the classical battlefield traditions apply as well with modern weapons as they do traditional.

*How do you define the separation between a classical martial art and fighting or self-defence system?*

Part of my answer to that is above. The great majority of what we call martial arts are not martial at all. Most are civilian systems of self defense and, more recently of course, sport combat systems. The definition of each is pretty self-explanatory.

We have a saying in hopology – function drives. This is basically a variant on 'form follows function'. That means that no matter how someone might describe what they are doing, the form of the system will adapt to the end use or function.

Battlefield systems are probably the most apparent – the aim is to quickly disable (kill, wound, or capture) the adversary. To that end, there is very little empty-hand application in battlefield systems.

Self-defense, on the other hand, is basically aimed at escaping with minimal or preferably no damage or injury from an assailant. It's worth noting that this doesn't necessarily mean the defeat of an adversary in a fight.

And in sport combat, I can defeat my opponent by point, submission or judge's decision – but killing or seriously injuring him is generally frowned upon!

*The late Donn Draeger was one of the first westerners to seriously research, practice and write about Asian combative systems. How did Draeger get involved in hopology?*

Donn had started in judo when he was about eight. However, I think the real influence in his life was his experience as an officer of Marines in the Pacific War and Korea. He was a real physical stud and was an incredibly capable athlete, but military battlefield experience brought home to him the difference between training and competing indoors in an athletic event and the harsh realities of fighting for your life. While in Japan, in the '50s, he was primarily training in judo, but was also looking into the classical traditions of battlefield combat, the koryu bujutsu.

He was first introduced by his judo teachers to Shimizu Takaji Sensei of Shindo Muso Ryu, and began training in that tradition. Later, he also began training in Katori Shinto Ryu. While training with those classical traditions, he became involved with Japanese martial research organisations, and started doing hopological research in Japan. From there it was natural to expand his interest on a more global basis.

*How did you as a westerner get accepted into a classical ryu in Japan?*

I was accepted into Shinkage Ryu and Owari Kan Ryu at the Shunpukan Dojo in Nagoya, Japan basically through the traditional method of introduction and personal application. A friend had told me about the unique sojutsu (spear) training done at that dojo, and I arranged to have a written introduction in order to go visit and observe. I was so impressed with the headmaster of the tradition, Kato Isao, that I ended up applying to join the dojo. However, applying and being accepted to join the training at the dojo is not the same as being accepted into the ryu. It was roughly a year after I began training that I was accepted into the tradition.

*Much is made in today's society of the term 'warrior' and its use to describe both sporting stars and celebrities (MMA fighters). What groups/organisations/vocations do you*

*believe can still be categorised as having warrior culture today and, what are the qualities that define a warrior?*

Needless to say, the pop concept of the warrior is a much watered-down version. Without going into great technical detail, a warrior is the individual who trains for combat in the real world, primarily on, though not limited to, the battlefield. Perhaps the biggest determinant is the inherent life/death nature of the type of conflict the warrior is preparing for. Another determinant is that while the warrior might be a member of a team, he takes on the responsibility for training and preparedness and character as an individual. He doesn't leave any of those aspects up to whatever organisation he might belong.

Simply being in the military or law enforcement doesn't make one a warrior, but many members of those organisations likely joined because they had the warrior mindset to begin with. Certainly the military and law enforcement tend to select for that type of mindset.

On the other hand, the nature of the modern military and law enforcement is bureaucratic and will tend to over balance on the side of bureaucracy versus developing the capability of the individual.

In some of the special-forces type units, there is a somewhat greater emphasis on the capabilities of individuals, and certainly these units have an even greater selection criteria for the warrior type.

One final aspect of the warrior, which is probably the most neglected in the pop concept, is that of character. In all societies in which a warrior class arose, the warrior was a protector – he had a moral and ethical responsibility to live up to. Without a code of ethics/integrity/morality, no matter how good a fighting man's capabilities, he is not a warrior.

*What psychological effect does the warrior's garb, such as a soldier's uniform, have on its wearer?*

Uniforms arose as a means for military to subjugate the individuality of the soldier to the greater group. Military – that is, soldier – warfare is based on the strategic and tactical use of groups of men, trained to operate as efficiently as possible as a team. In this context, it is paramount that the individual operate almost entirely as a team member and not as an individual. The uniform works exactly towards that end – group identity.

In most warrior societies, there was little or no uniform apparel.

*Do the uniforms worn by martial artists, such as the dogi, have a similar function? And if so, what effect does it have when a person trains in the uniform, but finds themselves without it and the associated psychological effects, on the street when a self-defence situation arises?*

Modern keiko-gi (training wear) and dogi (dojo wear) operate in a similar function as uniforms, in the sense that they support an individual's identity as a member of a group – in this case, a modern martial arts group.

Interestingly, in Japan, that type of uniform is a relatively modern affectation. Prior to the modernisation of Japan in the late 1800s early 1900s, there was no standardised training apparel. None of the dojo wear, as we now know it, was worn when traditional systems were still being used for real combat. The modern dojo wear has virtually nothing to do with preparation for combat.

*Is the ethos of the warrior and study of martial arts a relic from the past or still relevant in today's society?*

As I stated in my answer to question three, technology has changed, but humans remain the same. Many things were learned during the periods of the warrior that have tremendous value today. It is only through the study of those traditions that we can learn and select aspects that are pertinent in our world today.

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The Light Horse Series: The Light Horse © Deb Gilmartin

PART  
TWO

# the Beersheba charger

BY WO1 DARRYL KELLY

Digging his spurs into the Waler's side, Trooper Sloan 'Scotty' Bolton set off in pursuit of the gun, calling for help from an Australian officer who was dismounted nearby. He rode up alongside the German officer and called for him to halt, but was ignored. Scotty took aim, pulled the trigger and heard the click of an empty chamber.

He then moved in closer and hit the German over the head, but, as the German was wearing a helmet, this did no more than hurt Bolton's hand and dent his pride. Next he thrust the butt of the revolver in the German's face, knocking him to the ground. Grabbing the reins of the lead horse, he slowed the team to a halt.

Maintaining a bluff, he kept the Turks covered with the empty revolver, while the Australian officer rode up and took charge of the prisoners.

As they returned with their prize, retreating Turks threw down their weapons and joined Bolton's party. By the time they reached the town square, their numbers had swelled to more than 30.<sup>1</sup>

For his actions, Scotty Bolton was awarded the Distinguished Conduct Medal, with a citation that hailed his conspicuous gallantry and devotion to duty.<sup>5</sup>

Despite the ferocity of the attack, the casualties suffered by both regiments were relatively light, with only 31 killed and 36 wounded, most as a result of the savage hand-to-hand combat in the trenches.

With the fall of Beersheba, the Desert Mounted Column forged its way across Palestine, the Turkish resistance crumbling in their wake. Gaza fell a week later, the River Jordan was crossed and Jerusalem captured.

After spending the first months of 1918 resting and training, in March and April, the 4<sup>th</sup> took part in raids against the towns of Amman and Es Salt. However, a number of natural fortresses denied victory to the troopers: Red Hill, Black Hill, and the most vital – Table Top.

Table Top was a myriad of rocky outcrops and sheer slopes. The light horsemen eyed the fortress with a steely resolve. The defenders were equally determined to fight them off.

Bolton checked and rechecked his rifle and ammunition. He drew his bayonet from its scabbard and fitted it to the weapon, laying out his three Mills bombs on the edge of his pit.<sup>4</sup>

Mentally, he urged the enemy to counter attack, daring them to show their faces.<sup>1</sup>

Ear-splitting screams punctuated the deluge of rifle and machinegun fire as the Turks attacked. The troopers returned fire but soon found their ammunition all-but exhausted. The pins were pulled on the Mills bombs and these were hurled at the relentless attackers. When the bombs ran out, the troopers resorted to rocks, taking pot shots at the Turks with any projectile that came to hand.<sup>3</sup>

Finally, the attack faltered, and the Turks began to withdraw. Along the light horse line, the order came to pursue the retreating attackers.

Scotty needed no urging. As he scampered in pursuit, he was enveloped in the dust and smoke of a sudden explosion and found himself rolling wildly and blindly down the hill. He pushed himself up with one hand, only to fall again – his left leg was now a mangled, bloody mess.

Crawling to gain cover behind a rock, Bolton felt his life draining away with each pulse from his severed arteries as he called plaintively for a stretcher-bearer. While he waited, he tried to administer some sort of first aid, then he realised that his right leg was also severely injured. He was sure that this was the end. As he lapsed into unconsciousness, he heard the reassuring voice of a mate.<sup>1</sup>

For days Bolton hovered precariously between life and death. One cold, still morning, he opened his eyes to be greeted by a pretty Australian nursing sister.

He was in a hospital in El Arish. As he surveyed his surroundings, he noticed the cage that encompassed the lower portion of his body. The nursing sister followed his eyes and the look on her face told him the grim truth. He had lost both legs.<sup>6</sup>

The troopship pulled into the Melbourne dock to the clamour of bands and the cheers of the waiting crowds. Slowly, the gathering fell silent as the hushed and shocked people parted to allow the long stream of wounded to file through.

These men had left Australia young, fit and full of fight. Now they returned blinded and maimed – many lacking limbs. These soldiers now faced a new fight.

Scotty spent his convalescence at the Caulfield Repatriation Hospital.<sup>2</sup> Here he was fitted with a pair of artificial limbs. The courage he had shown at Beersheba was apparent again as he gritted his teeth and took his first steps with his new legs.

Time and again, he was faced by setbacks. His new limbs would rub on the raw skin, the stumps that were once his legs would break down, and gangrene set in – more surgery to remove the damaged tissue, and back to square one, learning to walk with artificial legs.

One day, as Scotty faced the daily grind of his exercise regimen, a young wisp of a girl walked in to distribute gifts to the patients. Their eyes met and a smile came to Scotty's face.

Her name was Elsie and he realised they had met before he went on service overseas. The two had exchanged letters during that time, but had remained simply pen pals. As time passed they became inseparable, but Scotty was reluctant to consider the possibility of marriage until he had proven himself capable of walking again. He made a promise to himself and to her – he would fight to regain his mobility; he would not surrender, irrespective of how long it took. He would walk again.<sup>1</sup>

Of the 30 amputees in the ward, Scotty was the only one to walk out. The others lacked Bolton's determination, accepting life as a cripple, dependent on crutches or confined to a wheelchair.

Scotty made many return trips to the hospital, earning the praise of his doctors for his resolve to master his new limbs. On one occasion, he alighted from a tram in front of the hospital, misjudged the gutter, and sprawled on the ground in a helpless tangle. As he struggled to regain his feet, many of the passers-by looked on in disgust, believing him to be yet another drunken veteran. An officer came to his aid, helping him gently to his feet. Scotty noticed the crimson ribbon on the officer's chest. The Good Samaritan was none other than Captain Rupert Moon VC.<sup>1</sup>

On 20 March 1919, Bolton was discharged from the Australian Imperial Forces.<sup>2</sup>

In 1922, he finally married his beloved Elsie.

The post-war years saw the Boltons settle on a property in the Geelong area. Scotty quickly became obsessed with producing the best possible breeds of cattle. At the centenary Melbourne Show of 1934, one of Scotty's animals won the coveted champion Jersey bull trophy, establishing the Bolton name at the forefront of the cattle industry.

The Depression years were difficult times for the vast majority of Australians, but especially hard for the Bolton family. Scotty's health deteriorated and he was required to make regular trips to hospital for treatment. The old light-horse qualities of resourcefulness and self-sacrifice endured, and Scotty battled through the worst of those terrible years, determined to provide the best for his family.

Scotty was adamant that all his children should be competent horsemen. A favourite family tale concerned Ruby, a troublesome pony that had provided many a bruising encounter for the young Bolton children, bucking each of them off in turn. Finally, in a fit of frustration, Scotty stumped his way over to the horse, grabbed the reins and hoisted himself into the saddle, determined to show the children how it should be done. Suddenly, Ruby bucked, sending Scotty tumbling to the ground. As he lay grinning stupidly at himself, he realised that the force of the fall had broken one of his artificial legs. The Bolton children would remind their father of his tangle with Ruby for years to come.<sup>1</sup>

On Christmas Eve 1947, as families across Australia rushed to complete last-minute Christmas shopping and children dreamed of the gifts they would receive on Christmas morning, Sloan Bolton, the brave Beersheba

charger, fought his last battle. He did not live to greet the dawn of Christmas Day, 1947.

Elsie Bolton now took up the challenge and held her family together, only to be dealt another blow six months after Scotty's death, when the Bolton homestead was all-but destroyed by fire. Among the treasured possessions lost to the flames were the medals that had been awarded to Scotty. Elsie wrote a heartfelt letter to the Repatriation Department, explaining the loss of the medals. She described particularly the sense of emptiness that the family would feel on ANZAC Day when other school children displayed medals and ribbons earned by parents and grandparents and yet the children of a proud and decorated veteran such as Sloan Bolton would have none. But, Elsie's request for replacement medals was refused. Mindless bureaucracy had determined that these medals could not be provided once a soldier had died.<sup>1</sup>

In 1970, during Queen Elizabeth's visit to Australia, Bolton's 10-year-old granddaughter, Jenny, wrote to the Queen and asked if she would intervene and have her grandfather's medals reissued to the family. The Governor General replied to Jenny's request on the Queen's behalf and a replacement DCM was forwarded to the family.

Scotty Bolton's story was brought to life on the silver screen in the 1987 film 'The Light Horsemen'. Jon Blake, a well-known Australian actor with a very promising future, was chosen to portray Bolton. He visited Elsie and wrote to her on a number of occasions, keeping her advised of the film's progress. It seemed, however, that fate had not finished with the Bolton family. At the completion of filming, Blake left the outback film set to return to Adelaide. En route, he was involved in a terrible car accident which left the young actor with severe, irreversible brain damage.

Scotty Bolton's story highlights the courage, resourcefulness and true grit that typified the light horsemen. They were men who routinely faced impossible odds with a wry, laconic humour. They revelled in their reputation for salvaging the most unlikely victory in the face of certain defeat. The legendary cavalry charge at Beersheba now occupies a hallowed place in the annals of Australian legend.

Yet Scotty's story is also the seldom-told story of courage, sacrifice and fierce determination that epitomised the struggle of many soldiers in those hard post-war years. The fight of the crippled and often traumatised soldier and his family to rebuild a normal life is also a story that truly warrants telling.

Author's note: I would like to thank Scotty's daughter, Margaret, for her valuable assistance in piecing together her father's story. The insight provided by his diaries and family photographs has helped recreate the spirit of Scotty, and for that I owe her my deepest gratitude.

1 A Dream of the Past, Diary of Trooper Sloan Bolton DCM, privately printed by the family.

2 National Archives of Australia: B2455, WW1 Service Records, 858 Private Sloan Bolton

3 Jones I, The Australian Light Horse, Time-Life Books Australia in association with John Ferguson, Sydney, 1987

4 The Mills bomb was a heavy fragmentation grenade

5 AWM 28, Recommendation Files for Honours and Awards, AIF, 1914-1918 War

6 From family notes, graciously provided by Mrs Margaret Grant (nee Bolton)

## BROTHERS IN ARMS: HELL'S HIGHWAY

Ubisoft  
<http://brothersinarmsgame.com>  
 X360, PS3, PC

Just when everyone thought that the success of modern-day squad shooters such as *Call of Duty 4* had all but banished WWII from the gaming world, Gearbox Software and Ubisoft have teamed up to create what is the greatest Nazi-killing experience to date (and Sapper Gameboy does not throw out accolades like 'greatest' often).

To dominate in the played-to-death WWII market really takes some doing but the development team have proven without doubt that there is more to be told in the fight to save Europe. Perhaps that's the difference.

*Brothers in Arms: Hell's Highway* tells a story through gameplay rather than just linking historical events together and expecting players to become immersed through the action.

The storyline was written by prolific military author

and former-serving US Army officer John Antal. Those of you struggling to understand the concepts behind manoeuvre warfare have more than likely come across Antal's *Armor Attacks* as required reading.

The *Brothers in Arms* franchise has always been more about squad tactics than individual battlefield prowess and *Hell's Highway* continues this approach.

Set during Operation Market Garden, the combined airborne and armoured push into Holland made famous in the book/movie *A Bridge Too Far*, *Brothers in Arms: Hell's Highway* has players reprising the role of Matt Baker from the first *Brothers in Arms* game.

Matt has been promoted to a 101<sup>st</sup> Airborne Division squad leader, and is assaulting through Eindhoven on Operation Market seeking to link up with the XXX Corps column pushing up 'Hell's Highway' in Operation Garden.

Sergeant Baker and his squad have been



fighting since D-Day and the four months of combat have taken their toll, physically and mentally, on the men – Sergeant Baker in particular. It is this mental anguish, the visible effects of post-traumatic stress on Sergeant Baker that has taken *Brothers in Arms: Hell's Highway* to new ground. It's vividly portrayed in the game and, most importantly, represented as just one of those things that soldiers had to suck up and get over, often with the close support of their mates.

Throughout the game it is clear to see Matt or one of the other soldiers slipping to the point that they become combat ineffective, yet, with a bit of timely intervention from their mates, they manage to keep the demons away for another mission. It is a visceral presentation of what combat veterans live through and the fact that Gearbox and Ubisoft saw fit to expand into this area was a significant gamble – gamers often don't like to be reminded of the realities their virtual worlds portray.



Gameplay in *Brothers in Arms: Hell's Highway* has also been tweaked from the previous titles in the franchise. The requirement for suppression remains strong and tactical manoeuvre essential for success. Those skills I learnt back in the day on Subject 2 for Corporal came into play in almost every engagement. 'Contact Front!' take cover, assess the enemy, assess the ground, develop a plan, issue orders, synchronise actions and crack on – the combat appreciation process comes into its own during the game.

Matt Baker's squad generally consists of two fire teams – one assault group and then either a gun group (base-of-fire team) or an anti-armour team. Depending on who's in train, your own character will be equipped with differing weapons. In essence it gives players three manoeuvre elements to suppress, move and assault. And it works very well. The soldiers in the squad behave like the combat veterans they portray and quickly find cover, engage identified enemy, pass information back and exploit opportunities whenever they are seen.

Move an assault team to the flank of an enemy group being suppressed by the base-of-fire team and, more often than not, the Germans will recognise the new threat and seek to disengage and withdraw. Their panicked movement will open up opportunities for the player's

squad who will adjust fire onto the dislocated enemy, often destroying them in the midst of their hurried withdrawal.

Similarly, just throwing your fire teams into the first available cover and ordering them to fire on identified enemy groups is likely to result in a stalemate, or the Germans taking the initiative and seeking to out-manoeuve your force.

*Brothers in Arms: Hell's Highway* truly is tactical manoeuvre warfare at its finest. A destructible environment adds to the realism and cover must truly be cover if your fire teams are to survive – a picket fence will disintegrate before your eyes.

The game does, however, have its niggling faults. In sections of the game, the player's character will meet up with the spearhead of the XXX Corps force. At this point the player is thrown into the turret of a Sherman Firefly (the one with the decent gun) as a Brit corporal and sent on an arcade-style mission to clear an area of stubborn German resistance.

These tank sections have none of the tactical prowess of the infantry aspects of the game and I can't help but think the developers threw them in late in the process in an attempt to widen the appeal. If only they'd attached the tank to Sergeant Baker's squad and let player's assault through with some true infantry/tank cooperation.

The other aspect of the



game that detracted from the overall experience was a short section in which player's must direct Sergeant Baker through a rapidly collapsing building that is engulfed by fire. It's an out-and-out puzzle section that is so foreign to the remainder of the game, I'm still not sure why it was included.

These minor annoyances can be overlooked, however, and they are quickly forgotten as the storyline progresses.

*Brothers in Arms: Hell's Highway* is also pretty graphic – well worth its MA15+ rating.

The game uses 'events' to capture the grittiness and lethality of close combat. Often gameplay will go into slow time and the impact of a .30 cal round against the head of a German will be displayed in graphic detail. Similarly, a well-placed grenade or bazooka round will cut the action to slow time and the eviscerating effects of fragmentation against the human body are plain for all to see.

This graphic portrayal can be toned down in options, if required, but my personal belief is that the imagery, coupled with the post-traumatic-stress storyline,

is likely to have more impact on an Australian generation that, for the most part, escaped the brutal horrors of war.

Like all good war movies, *Brothers in Arms: Hell's Highway* is more of an anti-war statement than it is a rally to arms.

*Brothers in Arms: Hell's Highway*, like *Band of Brothers* and *Saving Private Ryan*, tells the story of the 'greatest generation'. While it can be played as just another shooter and an opportunity to rack up some X360 achievement points pretty quickly, those who actually get involved in the plot, see the cut scenes for what they are and take in the true brutality of it all will gain the most reward.

Couple the gaming experience with John Antal's supporting novel and perhaps rewatching *A Bridge Too Far* and it's as close as many will ever get to seeing, feeling and experiencing WWII combat.

It's an experience that perhaps more people should have in an effort to understand the combat veteran in their midst.

Score: 4.5/5

**BROTHERS IN ARMS: HELL'S HIGHWAY TRULY IS TACTICAL MANOEUVRE WARFARE AT ITS FINEST.**



## COMPETITION

CONTACT has three PC versions of *Brothers in Arms: Hell's Highway* to give away, thanks to the team at Ubisoft Australia.

Simply address the following to be in the running:

**Tell us in 100 words or less why you think Operation Market Garden ultimately failed.**

Send your entries to [editor@militarycontact.com](mailto:editor@militarycontact.com) by Australia Day 2009 to be in the running.

As the prizes are for PC, please ensure your computer has the required system specifications to run *Brothers in Arms: Hell's Highway* before entering. Check <http://brothersinarmsgame.com> for more details.

# BOOK REVIEWS



## A POGO'S PERSPECTIVE: A NON-COMBATANT SOLDIER'S VIET NAM EXPERIENCE; ITS AFFECTS AND AFTERMATH

268 pages, with photos

Temple House

RRP \$29.95

Reviewed by Gordon Traill

Greg Smith served as the orderly-room corporal in A Sqn 3 Cavalry Regiment in Vietnam 1970/71 and has written a book of his experiences and how it affected him, enlightening the reader how all who served, including 'pogos' (personnel on garrison operations), were affected by war in varying degrees.

He speaks of the additional burden of guilt that pogos experienced by not being able to physically support their mates who went beyond the wire. He walks the reader through his call-up, training and discipline. He details his role and experiences as a pogo, which may be an eye opener for some.

For 35 years he worried about acceptance by his mates because of his different role. This was all swept away in a heartbeat at a Melbourne reunion and he now wears the pogo tag with pride. In this book, Smith says, "To every pogo, be exceptionally proud of the excellent job you did. Without that administrative support the combatant roles could not have proceeded. Do not be afraid to stand up and be counted as a pogo; you will be surprised how many of your mates will thank you for a job well done. Be proud to have served, be proud to have been a pogo".

You will share his highs and lows. You will laugh and rekindle the good and not so

good times with Smith – with absolute honesty, he details his emotional decline and the subsequent recognition/diagnosis of post traumatic stress disorder (PTSD). He even shares the treatment that has benefited him and outlines what is available to veterans.

This is a book for veterans, partners and families. It also provides a better understanding of the illness known as PTSD.

## COMBAT MEDIC: AN AUSTRALIAN'S EYEWITNESS ACCOUNT OF THE KIBEHO MASSACRE

Terry Pickard

192 pages, B&W photos, maps

Big Sky Publishing

RRP \$29.95

Reviewed by Gordon Traill

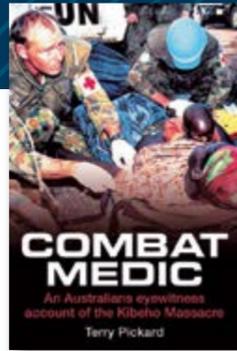
*Combat Medic* by Terry Pickard is an eyewitness account by an Australian Army medic who witnessed, first hand, the massacre at Kibeho in Rwanda.

*Combat Medic* is a fascinating story and a journey of one man's life, pre and post Rwanda. Pickard is vivid in his descriptions of what it was like to serve on a UN mission. He is critical of how people have judged peacekeeping service and the lack of bravery awards to members of UNAMIR at Kibeho.

The powerful and confronting account of Pickard's time at Kibeho will shock you. It will go some way for the reader to understand why Pickard has struggled with severe post-traumatic stress disorder (PTSD) for so many years since his return to Australia. He definitely wears his heart on his sleeve as he deals with his illness.

The story of Kibeho needs to be told and be passed on to future generations of men and women who join the ADF. "At last, the old myth of peacekeeping service with the UN being just a bit of a holiday and a good way of earning extra money was put away for good. We could only sit and watch in horror."

The scale of genocide that took place at Kibeho is mind numbing. The immense pressure and strictness of the rules of engagement (ROE) placed upon the Australians by the UN would have tested any man's limits. The Rwandese



Patriotic Army (RPA) tried everything to intimidate the Australians to open fire. Strict adherence to the ROE and personal discipline saved the Australians from being killed. SAS patrol medic Paul Jordan said years later, "We are good, but not that good. There were around 2000 RPA soldiers, all focused on killing, and only 32 of us".

George Gittoes, a war artist attached to the Australians, had been threatened with death if he took pictures – but he was determined to let the world know what was happening in Kibeho and his photos have since been seen all over the world, with some reproduced in this book.

Infantry provided security to the Australian medical team who worked tirelessly with the 'sea of humanity' that was estimated to be around 150,000 people. Pickard talks about his trust in fellow Australian soldiers – "We were treating about six casualties who were placed along a wall for protection when shooting started. I wasn't sure whether I should continue treating them or take up a defensive position. I had a quick look around and saw our infantry blokes on the wire. As soon as I saw our blokes there I instantly knew I had nothing to worry about and was able to continue treating the casualties".

Pickard sums up his time at Kibeho, "April 18-22 1995, was the most testing time of my life both physically and mentally. I believe I did ok. We saved who we could and did our best in the most atrocious conditions".

Those who served as part of the United Nations Assistance Mission in Rwanda (UNAMIR) were initially awarded the Australian Service Medal (ASM) for 'non-warlike service' but, in February 2006, the government reclassified it war-like and awarded the Australian Active Service Medal (AASM).

Terry Pickard, the ADF members who served as part of UNAMIR and George Gittoes are the real heroes of Kibeho. The Anzac legend lives on.

## WALKING WITH THE ANZACS: A WALKING GUIDE TO AUSTRALIAN BATTLEFIELDS ON THE WESTERN FRONT

Mat McLachlan

368 pages, photos and maps

Hachette Livre Aust

RRP \$40

Reviewed by Gordon Traill

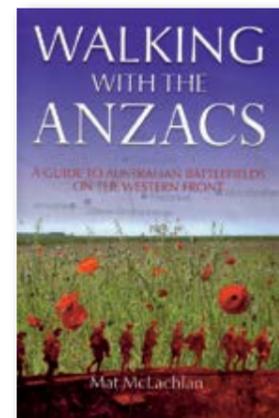
*Walking with the Anzacs* compares to a *Lonely Planet* guide for tourists. Directing the reader to the battlefields of Belgium and France (deliberately omitting the current trend to visit Gallipoli) McLachlan reminds us of the vast numbers of Australians who fought and lost their lives on the Western Front.

McLachlan describes, in great detail, names such as Fromelles (French Flanders), Pozieres (The Somme) and Bullecourt (Hindenburg Line), while many street names common to ADF bases around Australia also come to life on this guided tour.

"Every night at 8pm the streets around Menin Gate are closed to traffic and crowds gather to hear volunteers from the Ypres fire brigade play the Last Post in bugle chorus. It's a ritual that has gone on here every night and in all weather since 1928."

From the comfort of your armchair, you could easily plan a trip to the western-front battlefields based on the concise and useful information provided – accommodation, what to wear, when to go, getting around and planning your trip. McLachlan covers it all, and more.

I highly recommend this book. Even if you don't plan to travel in the near future it is a real eye opener.



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# BOOK REVIEWS

## FORGED BY WAR

Gina Lennox

336 pages, B&W photos

Melbourne University Publishing

RRP \$29.95

Reviewed by Gordon Traill

Gina Lennox is a film maker, radio producer and accomplished author. *Forged by War* is a collection of first-hand accounts by Australian veterans of war and other military actions overseas, discussing their experiences of war and how it changed both the veterans and their loved one's lives. It is a journey of many ups and downs.

Lennox describes what it is like to have a loved one go to war and, just as importantly, to have one return. The book particularly focuses on the impact on family dynamics and how others outside of the family view returning soldiers. She successfully analyses how veterans lead their lives "long after the bullets and bombs have stopped".

She takes the reader on a journey through the eyes of the families and servicemen, from WWI to today's conflict in Iraq. The book covers a broad range of cases – such as Reg Saunders, the first aboriginal soldier to be commissioned as an officer. Saunders served with great distinction and, despite being wounded, on his return to civilian life "there were no job offers". Gary Heskett, a Vietnam Veteran, describes how his "six years as an infantry soldier prepared me for police work", while his son Greg writes, "I learnt that my father, despite his hard exterior, is actually quite emotional when it comes to the Vietnam War. Now I realise that my dad, and everyone else for that matter, may not be coping with past events as well as they would like".

Paul Copeland is a veteran of Cambodia and the Sinai, son of a Vietnam veteran and president of the Australian Peacekeepers and Peacemakers Veterans' Association. He describes his experience of a vehicle accident in Cambodia in excruciating detail. A few years later, after recovering from his injuries, Paul tells his fiancée, Rhonda, "By the way, I'm being posted to the Sinai". "Do I have a say in this?" she retorts. "No, this is the Army – you get posted, you go!"

Milan Nikolic served with the UN in Rwanda. With 30 or so ADF colleagues, Nikolic went to the displaced persons camp at Kibeyo to aid the victims of the genocide raging in the country. The stench of sewage, rotting garbage and the noise of 100,000 people he describes, puts you right there with him.

"There were people screaming and stampeding in all directions. Next, we heard machine-gun fire. An estimated 5000 people were slaughtered," he says. But, crucially, "I didn't tell my wife".

The families of veterans deserve medals for showing love, patience and understanding as we go off to war and come back with life-changing experiences, and this often-overlooked part of military service is given its proper exposure by Lennox. She allows those affected by war to reveal, in their own words, how it changed them, lending an emotional weight and credibility to their experience. In addition, the impact on those soldiers exposed to lesser-known theatres such as Rwanda provides insight into the continuing struggle for recognition and respectability that veterans face even today.

This book is an excellent read and could well teach every Australian who the true Aussie heroes are.

## SOLDIERS' TALES: A COLLECTION OF TRUE STORIES FROM AUSSIE SOLDIERS

Edited by Denny Neave

180 pages, B&W photos

Big Sky Publishing

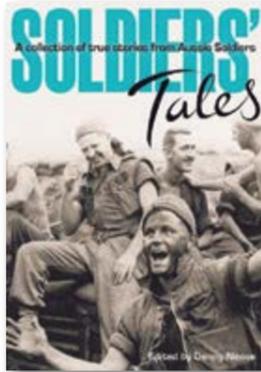
RRP \$19.95

Reviewed by Brian Hartigan

*Soldiers' Tales* is an entertaining collection of stories that are by turns deep and humorous – but, best of all, straight from the horse's mouth.

This handy, large-pocket-sized book, delivers soldiers own stories and anecdotes from WWI to today in an easy format – whether you want a short, quick fix or a longer read.

One story I particularly liked, from Sergeant William Ryan, 296 Light Aid Detachment, New Guinea, goes... *Our chaplain so often said, "Call me, Digger" so we did. And we had a Red Shield [Salvation Army] representative as a welfare officer whom we called "The Professor"*.



*I always thought Digger was the best soldier in the battalion, though he was not of my belief, and I can't speak too highly of the old Professor, with his pencils and paper and, "Write to your mum, soldier"*.

*When the main force of the battalion landed at Rabaul, I was in the first barge and one of the first ashore. Out of the bush came a voice, "Coffee, mate – with or without?" It was the Professor. He'd landed the night before, hadn't he? And the Digger: "You're looking tired, soldier. Give us your shovel. I need some exercise." Are there still men like these around? Sergeant Ryan asks. The answer, of course, is that, yes, they are still around – at least in my experience.*

The only criticism I could level at this book is that some of the stories seem a little too familiar, probably through a certain level of cross-pollination between this and *Aussie Soldier; up close and personal*, (another fine read) from the same source earlier this year.

That aside, it is a lovely little book, nicely put together and well worth the dollars.

## IN HARM'S WAY

Brian Corrigan

288 pages, colour photos

Pan Macmillan Australia

RRP \$32.99

Reviewed by Brian Hartigan

As a young man, Brian Corrigan literally devoted himself to Judo and had reached international-competition standard before an injury put an end to his calling.

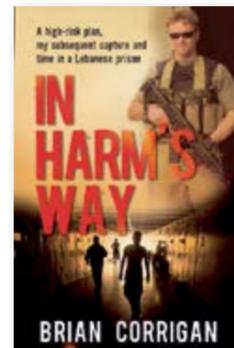
He joined the Australian Army and was qualified as a radio technician at 3RAR when the battalion was deployed to East Timor in 1999.

A 'driven' man, Corrigan was bored with his workshop job and took every opportunity to mix with the foot soldiers of the

battalion, picking up courses and knowledge whenever and wherever he could.

He eventually became a physical training instructor – a job seemingly right up his alley. But even this wasn't enough to fulfil his need for excitement. He seems to have had a real need to prove himself to himself.

In 2004 he quit the army and took the first of three private security contracts in Iraq, where the danger and excitement all-but fulfilled his need to prove himself as a warrior.



With that behind him and a quiet life with wife and kids to look forward to, a further opportunity to work in the secretive world of 'risk management' touched the heart of this husband and father – and shot him into front-page headlines around the world.

Touched by the case of Melissa Hawach, a Canadian mother of two young girls abducted by their father and taken to Lebanon where they were effectively out of reach of any reasonable legal jurisdiction, Brian Corrigan accepted a contract to go to the recently quiet war zone and retrieve the kids.

Leading a team of former SAS operatives, Corrigan fulfilled his mission but, hours later, he and one teammate were apprehended at the airport before they could escape the country and spent the next three months in jail with the spectre of 15 years hard labour in front of them.

Brian Corrigan dislikes the term 'mercenary', but he was, nonetheless, a soldier for hire. While I sincerely hope never to need his services, I am somehow quietly reassured that there are men like him out there willing to take on the dirty work that falls outside the purview of our very ordered and complex 'system' – whatever his motives.

Brian Corrigan is not a brilliant writer, but his story is very engaging.

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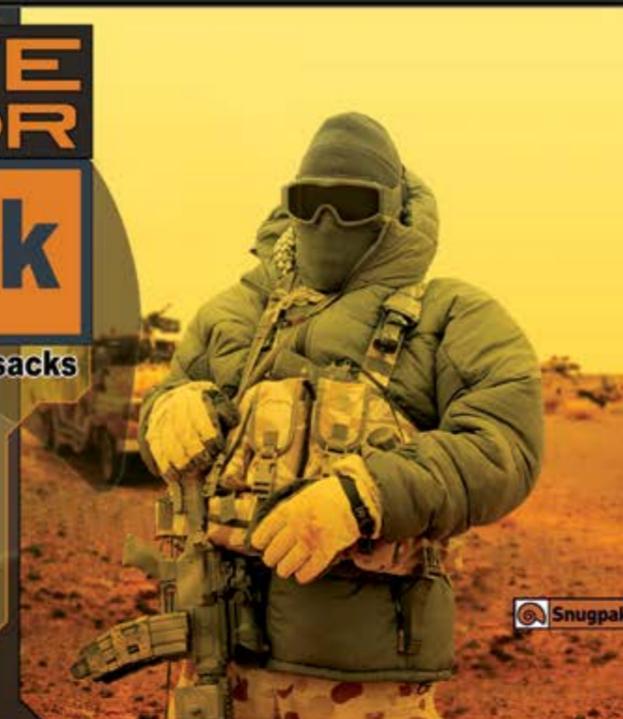
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3 x Drainage holes in bottom of pack for water ops

6 x External cinch straps to keep it all together

Two internal long pockets on side walls of pack for giving sets or 2LTR Hydration kit and other mission essential items 150mm x 300mm Full-length Velcro slot behind the top mesh pocket

Front zippered pocket for maps or notebooks

Carry handle on top of pack

2 x Radio antenna or cable routing holes in top of pack

Fully adjustable shoulder straps

125mm x 125mm Velcro panel for ANF, nametape, IR IFF etc

Made from 1000 Denier abrasion and water resistant nylon Cordura and all Milspec buckles and fittings

Removable waist belt waist belt has attachment points for extra gear

Internal straps to secure radio and bulky gear

Elastic loops above top internal pocket for Cyalume sticks, pens, flex cuffs etc

PALS on front, sides and bottom of pack to attach mission essential gear

Hydration tube opening

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