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# ARMOUR

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## General Sir Harry Chauvel: A Humble Hero

By Honor Auchenlek

Anyone who has served in the Royal Australian Armoured Corps has heard of General Sir Harry Chauvel who led the now legendary Desert Mounted Corps in Palestine. Other than reminding some readers that through achieving victory, notably in 1917 at Beersheba and Chauvel and his Desert Mounted Corps' triumphal entry into Damascus on 1st October 1918, I don't think there is any need to go into Chauvel's military biography. Appropriately Chauvel was promoted to General, together with Monash on 11th November 1929, and I believe Chauvel was the first regular officer to achieve the rank.

Rather than seeking recognition for his successes, Chauvel saw those achievements as being those of the men under his command. Dying on 4th March 1945, eight years before I was born, I never knew my grandfather. From all I have read and from those who knew him with whom I have spoken, I never gained the impression that he sought popularity or felt under recognised - rather that his reward was in his service to others and to his community and the nation that nurtured him.

Much less known are his post First World War appointments as Inspector General, Chief of General Staff and First Member of the Military Board and his efforts to ensure the preservation and training of the Australian Army. Some spoke of him as being the 'guide, philosopher, and friend of the Defence Department.' In retirement his civilian involvements were extensive. His principle directorships included The National Bank and Colonial Mutual Life Assurance Society. He was Chairman, Australian Board, General Accident, Fire and Life Assurance Corporation, the Naval and Military Club, Melbourne, Shrine of Remembrance Trustees, The War Memorial, Canberra and the Victorian Blind Soldiers' Welfare Trust. He was Senior Patron of Legacy and actively associated with ToCH, YMCA and Red Cross Society. He was Synod Member and Parochial Nominator, Christ Church, South Yarra. No matter how busy he was, each week he still found time to telephone the Department of Veteran Affairs to enquire about the welfare of many returned soldiers. During the Second World War Sir Harry was as Inspector in Chief, Volunteer Defence Corps.

For all his military achievements and his various involvements after he retired from the Army, for me as a granddaughter, he seemed a remote and rather austere figure. What little I was able to learn of him came mainly in the 1960s from my grandmother when she was transcribing Sir Harry's war-time letters into large scrapbooks. Along with the letters she pasted in photographs, newspaper clippings, drawings and other memorabilia creating the unique historical document that is now with the Chauvel archive in the Australian War Memorial.



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# Coming Events



25 April 2017	ANZAC Day Parade	Refer page 21
11 November 2017	Cambrai Dinner	Royal Automobile Club

## The drone TANK that could soon lead US troops into battle

By Mark Prigg, Daily Mail.com

The US Army has revealed it has been testing a drone vehicle, known as Ripsaw. The 'drone tank' is controlled remotely, and can reload itself and even change weapons at the touch of a button.

The unmanned vehicle, though still in development, has been tested and is capable of driving up to 1 kilometre ahead of various types of formations, Bob Testa of the Remote Weapons Branch of the Armament Research, Development and Engineering Centre said.

During tests, Ripsaw was followed by an M113 Armoured Personnel Carrier, trailing up to a kilometre behind. Another soldier, in the vehicle, would control the Ripsaw and its weapon wirelessly, Testa said.

Rather than reinvent something, Testa said his team selected a vehicle already produced by Howe and Howe Technologies, since it had remote driving capabilities. In 2009, 'Popular Science' magazine named the Ripsaw the invention of the year, so the technology has been around for a while.

Testa and his team converted the vehicle for Army use and added a Common Remotely Operated Weapons Station, or CROWS. CROWS has been used in combat as far back as 2004 in Iraq and it allows a soldier inside a tank, Humvee, Stryker or any other vehicle to fire his weapon safely from inside the armour-protected vehicle.

The team then designed a self firing weapon, a gun that self-loads its own ammunition and even can swap out various types of ammunition, such as lethal and non-lethal, in just a few seconds, he said.

While it is technically feasible to go one step further and make the whole system robotic, meaning fully autonomous, Testa said that would not happen. Army leaders have repeatedly said that 'war is a human endeavour' and robots will never replace soldiers, he said.



Besides the ethical reason, Department of Defence Directive 3000.09 'Autonomy in Weapon Systems,' published in November 2012, prohibits robots from making life and death decisions without a human in control.

While a lot of experimentation and testing has occurred, Testa said formal certification testing at Aberdeen Proving Ground, Maryland, would still be

required to move forward.

Also needed will be a 'firm requirement' from the Army to move ahead past the development phase.

*Editor's Comment: That firm requirement may come sooner than later as the Russians have been seen to be using robotic tanks (Uran9) in Syria. The next edition of Armour will cover this topic in more detail.*



Photo courtesy of AWM

Alec Hill's scholarly biography of Chauvel accompanied my husband Mark and me on our various trips to Gallipoli and on our subsequent trip to Israel and Jordan. A letter from Lieutenant Colonel Graeme Smith, Chairman of the Board of the Trustees of the 4th/19th Prince of Wales's Light Horse about The General Sir Harry Chauvel Foundation was my perfect excuse to learn a little more about my grandfather.

So who was Chauvel? In her book *Chauvel Country* (1983) my mother Elyne remarked, 'Though he was self-effacing, he would stand out for the recognition of his Anzac's great effort.' My aunt Eve in Harare mentioned his quiet sense of humour. Every family member who remembered him spoke

of his love of horses and of the bush. Ex-serviceman and journalist Crayton Burns writing in the *Argus* described Chauvel as 'a shrewd and safe leader with a sound touch and an uncanny coolness in all times of crisis and danger'. He was a softly spoken man who never wasted words.

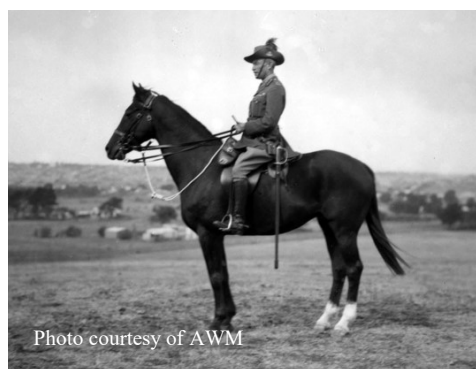
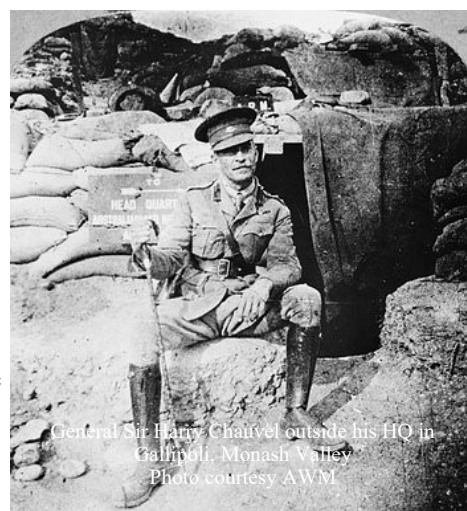


Photo courtesy of AWM

He was a perfectionist who at all times expected the highest standards of himself. He was a resourceful, independent thinker with a strong sense of moral conviction and determination to carry out his duty to his men and to his country to the best of his ability. I believe it was the development of these personal qualities throughout his military career that inspired confidence in others who served with him and made him into a quietly charismatic

leader, the sort of leader who might serve us all well today. Above all he was a family man who enjoyed gardening and going to race meetings with his wife and outdoor pursuits with his offspring. As his granddaughter these qualities are the ones that endear him to me. Chauvel never saw himself as a hero and this is perhaps why his name is little known beyond military circles.

Nonetheless he was a humble hero with an immense capacity to inspire. It is time to bring his achievements into focus and I hope that his memory will continue to inspire others.



General Sir Harry Chauvel outside his HQ in Gallipoli, Monash Valley  
Photo courtesy AWM

AUSTRALIAN WAR MEMORIAL

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### The General Sir Harry Chauvel Foundation

The central part of the Chauvel Foundation's work is to raise funds to commission leading Melbourne sculptor Louis Laumen to create an equestrian statue of Chauvel to commemorate his achievements and to remind people of his personal qualities.

The Chauvel Foundation also seeks to raise funds to establish the Sir Harry Chauvel Award. Each year regional shires across the nation will be invited to nominate a person whom they regard as a humble achiever, who like Chauvel is noted for his/her integrity and resourcefulness and for their ability to serve their communities in a way that makes a positive difference to others.

The equestrian memorial and the Sir Harry Chauvel Award are only a part of the Foundation's work. Our educational initiative encourages descendants of Light Horseman and other interested people to research and write the story of their ancestor. Many Light Horse stories have been told, but what about those whose stories have never been told and of the families who supported them? We hope through this initiative to bring the unknown heroes to light so that people in contemporary Australia can draw inspiration from them and fulfillment in telling their story.

As Sir Harry Chauvel grew up in the country on the banks of the upper Clarence River at Tabulam in northern New South Wales, the Foundation is keen to tap Light Horse stories from regional and country areas and to publish them in an online anthology. We hope that this initiative will help develop and confirm a sense of identity bringing with it an improved sense of purpose and wellbeing to young people in rural communities.

(Refer to page 16 for more information on the Foundation)

1. *The Argus*, (11 April 1930) from *Chauvel Scrapbooks in the AWM*
2. Mitchell, Elyne, *Chauvel Country* (Melbourne: Macmillan, 1983) p. 48
3. Burns, Crayton, 'Chauvel, his place among

the Greats' *Argus* (Monday March 5th, 1945) p.2







## **SOK17 - Soldier On Kokoda 17**

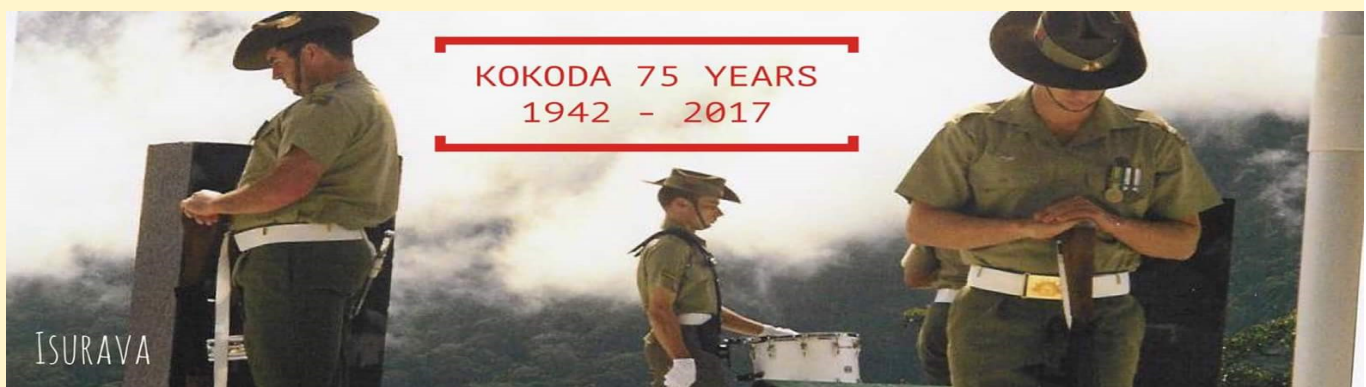
2017 marks the 75<sup>th</sup> anniversary of the Kokoda Trail Campaign, which was instrumental in stopping the Japanese advance towards Australia during World War II. In April 2017 a small group of veterans, including my husband – Craig Watkins, will come together to walk the Kokoda Trail to raise awareness and funds for Soldier On Australia, who are a privately funded Ex-Service Organisation that helps Australian Defence Force veterans that have suffered physical and psychological injuries as a result of their service.

In this trekking group the members have operational service with the Australian Army in Bougainville, East Timor, Iraq and Solomon Islands, and so understand some of the stresses and sacrifices, made as individuals and families, for deployed personnel. They also have mates who have deployed and have come back with psychological or physical injuries.

If you would like to donate, please go to their donation page:

<https://soldieron.giveeasy.org/campaigns/sok17-soldier-on-kokoda-17/>

*Thanks for your support*  
*Georgina Watkins*  
*G3 - Bldg 29*



**HEARTY WELCOME TO THESE NEW MEMBERS SINCE OUR LAST ISSUE**

Mr Scott Warr, 2 Cav, 2/14 LH (QMI)

# Technical Notes & News

## Land 400 Phase 2 and 3

LAND 400 will allow a staged retirement of the in-service Australian Light Armoured Vehicle (ASLAV) and the M113AS4 Armoured Personnel Carrier fleets. The highest priority for Army is to replace the ASLAV fleet with a CRV due to



obsolescence factors that constrain tactical employment and increase the cost of ownership. These obsolescence factors cannot be mitigated through upgrade and without replacement starting in 2020, a capability gap will result.

The IFV will replace the M113AS4 beginning in 2025. The M113AS4 LOT is expected to last as long as 2030 but its 'fit for purpose' suitability is decaying given current and emerging threats. It is not expected to be deployable for anything other than low intensity/low risk missions beyond 2025.

Two of the contenders being considered for these roles are the Boxer (CRV) and the Lynx (IFV).

### Phase 2 -The Boxer CRV

The Boxer Combat Reconnaissance Vehicle (CRV) proposed by Rheinmetall to meet the Australian Army's Mounted Combat Reconnaissance Capability requirement under Phase 2 of Land 400 is the effective integration of two military-off-the-shelf systems: the Boxer 8x8 wheeled armoured vehicle and the Lance two-man 30mm turret.

From the outset, Boxer was designed to have class-leading protection and crew survivability as standard, and it was designed to be highly mobile at these high protection levels.

The addition of the Lance turret addresses the third priority of lethality, the world's most advanced medium-calibre cannon turret providing an ideal blend of firepower, range, rate-of-fire (ROF), stowed kills and programmable 30mm ammunition natures.

The high protection philosophy at the heart of Boxer's design is aligned with coalition combat experience over the last 15 years, during which inadequately protected armoured vehicles were quickly relegated to non-deployable status. The lesson was clear: improve protection against more powerful kinetic threats, explosively formed projectiles, mines and IEDs to maintain operational relevance and enhance crew/occupant survivability.

The Boxer baseline vehicle has been proven and qualified by easily the most exhaustive design and development program the armoured vehicle industry has ever seen, with 12 prototypes in nine different variants put through extensive reliability and durability trials. Trials vehicles accumulated more than 190,000km of test driving, spread over 4,700 trial days.

#### PROTECTION CONCEPT

The Boxer CRV features a multi-layer protection concept and survivability cell that provides a unique overmatch capability to minimise the 'catastrophic kill' risk from mine blasts and IEDs. The mission module survivability cell has a triple floor and angled sides to deflect blast, sitting like a hammock in the drive module and effectively decoupling it from the blast. The double-skinned drive module also absorbs critical blast deformation. This underlying design philosophy ensures the Boxer CRV has multi-hit capability and sufficient residual mobility following an attack. Even the engine, which is situated in an L-shape in front of the driving compartment, adds another layer of protection to crew and occupants against over-penetrating projectiles.

The vehicle's external profile and design also assists in increasing survivability, taking advantage of stealth design techniques and generation of low acoustic, infrared and radar signatures. An example of this is the extra effort that was made to ensure that hot components such as the engine were thermally isolated through the use of decoupled and actively cooled plates on the front of the vehicle and the careful consideration of engine cooling and exhaust efflux towards the ground. The vehicle can accept a variety of external armour packages depending on the required protection level, including ceramic appliqué and Rheinmetall's Active Defence System.

In addition to class-leading protection against heavy machine guns, medium-calibre cannon and artillery fragments, Boxer CRV is protected against all types of anti-personnel and anti-tank mines, IEDs and nuclear, chemical and biological threats. As proposed for Phase 2 of Land 400, it is understood that the Boxer CRV meets and exceeds the project's very demanding protection requirements for kinetic threats over the frontal arc and mine/IED blast under the wheels and centreline of the vehicle. The location of flammable liquids also adds to Boxer CRV's overall survivability. For instance, there is no fuel or hydraulic oil inside the vehicle: the fuel tanks are contained in the rear of the drive module and the actuator for the rear ramp is positioned outside the mission module.

The drop-in mission modules, 10 of which have been developed and qualified including that for the infantry fighting vehicle (IFV) variant, are secured to the drive module by just four M32 bolts, with the associated hoses and electrical connections. This enables modules to be swapped out in theatre within 30 minutes. With the drive module common across all variants, the mission module concept also allows for 'pooling' of module versions to provide flexibility in procurement and deployment. As with Dutch and German army Boxers, all seven variants of the Boxer CRV family would share an identical drive module.

## EXTREME MOBILITY

In keeping with the original brief that the vehicle must be able to follow a Leopard 2 main battle tank cross-country, Boxer's tactical mobility requirements have been qualified at the maximum combat weight and under the most extreme environmental conditions. Mobility trials included testing in various locations in Europe, the Middle East and German Army-sponsored hot/ dry trials in Australia in 2010 where the top recorded temperature was 56° Celsius.

At the core of the Boxer CRV's high mobility is the MTU 8V199 TE20 720hp (536kW) V8 multi-fuel engine coupled to a 7-speed Allison HD4070 automatic transmission. Large power reserves accommodate future vehicle growth and provide motive power for the combat laden vehicle across any terrain without taxing the engine, thereby delivering lower through-life support and maintenance costs. The powerpack can be changed out in the field in less than 30 minutes.

The powertrain is joined by a driveline that features independent suspension for all wheels, permanent 8x8 drive with inflation system for the 27-inch Michelin X-Force XML run-flat tyres, anti-skid braking and steering mechanisms located above the wheels in protected positions.

Maximum speed of the Boxer CRV is 103km/h, complemented by a 1,050km road range for outstanding endurance, operational mobility and self-deployment.

## LANCE TURRET

In service with the Spanish Marine Corps since 2011, the Rheinmetall Lance turret is a state-of-the-art system that can be fitted to almost any wheeled or tracked AFV. To align with the reconnaissance role and end user community familiarity, the Lance turret on Boxer CRV is of two-man configuration to provide maximum situational awareness, observation, vehicle control and flexibility. With its modular design, Lance can also be configured for unmanned, remotely-controlled operation to reduce weight and free-up internal hull volume.

Armed with the Mauser/Rheinmetall MK30-2/ABM (Air Burst Munition) dual-feed automatic 30mm cannon and 7.62mm co-axial machine gun supported by advanced sensors and sighting systems, the Lance turret enables targets to be engaged with precision out to 3,000m and has true hunter-killer capability. The MK30-2 is a well-proven, highly versatile weapon and in various configurations is used in both ground and air defence roles.

The Lance turret has 200 ready-use rounds of 30x173mm ammunition in two natures available at the gun, with additional quantities of ammunition stowed in the vehicle. A unique feature of the Lance turret is its compartmentalised ammunition, which is stored outside of the crew compartment thus substantially increasing survivability.



Contributing to the reduced technical and integration risk profile of the Boxer CRV bid, Rheinmetall has ownership of the majority of high technology sub-systems which comprise the Lance turret, including motion electronics, stabilisation systems, electro-optics, sights, sensors and fire control system, as well as all the associated hardware and software architecture and interfaces. No third parties are required.

This would enable Rheinmetall to offer the Lance turret into future phases of Land 400, therefore assuring commonality between Phase 2 and Phase 3 vehicles. The modular build approach of the turret lends itself to this approach and would address customer concerns about turret commonality across the Land 400 fleet.

The Boxer has been fitted with a version of the ADS (Active Defence System), formerly known as AMAP-ADS. In the configuration as used on the Boxer CRV it includes at least 26 sensor units (maybe even more if the rear is also protected by ADS). Unfortunately this version of ADS appears to be incorporated into the additional armor modules on the side of the vehicle, which doesn't allow accurate

counting of the exact number of ADS countermeasures; usually there is at least one countermeasure per sensor unit, in some cases even two.

ADS is capable of intercepting RPGs and ATGMs in all known versions, while the heavier versions are also capable of defeating explosively formed penetrators (EFPs) and large caliber APFSDS ammunition.

## Phase 3 The Lynx IFV

At Eurosatory 2016 Rheinmetall has presented its new Lynx infantry fighting vehicle (IFV) to the international public for the first time. Lynx features a Rheinmetall LANCE turret similar to that fitted to the Phase 2 contender – the Boxer CRV. It is armed with a stabilised, externally powered, airburst-capable automatic cannon (either 30mm or 35mm) enabling engagement of targets with high precision at ranges of up to 3,000 metres on the move.

Rheinmetall claims that with a diesel engine mounted in the forward section and a modular armour concept, the vehicle architecture offers a high degree of protection. The vehicle's ballistic armour shields Lynx from antitank weapons, medium-calibre ammunition, artillery shrapnel, IEDs and bomblets. In addition, a spall liner in the vehicle interior protects the entire crew. Mine and IED protection packages, decoupled seats and the optional hard kill Active Defence System (ADS) significantly boost the vehicle's survivability.

The commander and gunner both have access to the Stabilised Electro Optical Sight System/SEOSS, a digital TV - IR optical system with an integrated laser range finder and fire control computer. In the fighting compartment, displays provide the crew with a 360 degree panoramic view.

According to Rheinmetall, the Situational Awareness System (SAS), featuring automatic target detection and tracking, enhances the hunter-killer capability and minimises crew reaction time. Laser warning sensors and the Acoustic Sniper Locating System (ASLS) likewise form part of the sensor suite. A combat management system and intercom for tactical communication round out the array of on-board equipment.

Owing to the manned turret, the commander can still lead from the hatch. The gunner and driver each have hatches, too, while two soldiers in the rear of the fighting compartment can also observe the area around the vehicle from an open hatch.



Rheinmetall claims Lynx has an excellent power-to-weight ratio and can handle gradients of up to 60 per cent and lateral inclines of more than 30 per cent. It can cross ditches up to 2.5 metres wide and ford bodies of water up to 1.50 metres deep. Furthermore, it can climb over one-metre-high obstacles. The vehicle can run on either rubber or light metal tracks.

The IFV comes in two versions: the KF31 and KF41 (KF stands for 'Kettenfahrzeug', or tracked vehicle in German). Weighing up to 38 tonnes, a Lynx KF31 in AUSCAM livery was on display at Eurosatory and can seat 3+6 soldiers. Lynx KF41 is slightly larger and can carry 3+8 soldiers, making it more suitable for the Australian requirement. According to Rheinmetall, both vehicle classes – Lynx KF31 and Lynx KF41 – can be configured for other roles include a command & control, an armoured reconnaissance, repair & recovery and an ambulance.



Rheinmetall has also partnered with Krauss-Maffei Wegmann in the Projekt Systems and Management (PSM) consortium to offer the lighter (31.5 tonnes) Puma IFV for Phase 3, and the vehicle entered service with the German Bundeswehr in June 2015. Australian Ben Hudson, Head of Rheinmetall's Vehicle Systems Division, said "Lynx is an advanced new modular family of vehicles that offers our customers the highest levels of survivability, mobility, lethality and capacity while utilising proven technologies to deliver a compelling value proposition for our global customers. Lynx delivers the capabilities that will allow our customers to fight, survive and win on the battlefields of today and tomorrow".

#### Article was compiled from the following sources:

Australian Defence Magazine March & June 2016) ([www.australiandefence.com.au](http://www.australiandefence.com.au))  
 Army website—[www.army.gov.au/our-future/modernisation-projects/project-land-400](http://www.army.gov.au/our-future/modernisation-projects/project-land-400)  
 Army-Technology. com  
 RHEINMETALL LAND 400 BID—[www.boxercrv.com.au](http://www.boxercrv.com.au)

Scholarship valued at \$80,000 AUD; those who have served in the military for at least five years are welcome to apply

Australia's AGSM Business School has announced a new MBA scholarship aimed at current military members or veterans.

The new scholarship is valued at \$80,000. Any current Australian military member or veteran can apply, as long as he/she has served for at least five years. Applicants must also be either Australian citizens or hold permanent residency and are eligible for citizenship.

Scholarship applicants will be assessed based on a few factors, including academic achievement, career progression, a demonstrated commitment to the military, GMAT score, and "ambassadorial qualities."

For more information or to apply, please see AGSM's MBA scholarship page.

### 2017 Subscriptions Reminder

The subscriptions for the new financial year starting the 1<sup>st</sup> July, 2016 are now due for the RAAC Association (NSW).

There are a number of exemptions as follows:

- Full Life Subscribers;
- Subscriptions Paid in Advance (3 Year Subscription);
- Members over the age of 75 years (at the start of July);
- Life Members and Widows.

For all others please mail to: **RAAC (NSW) Assoc., Bld 96, Victoria Barracks, PADDINGTON NSW 2021.**

#### Payment Methods:

1. Cheque or Postal Order (Payable to the RAAC (NSW) Assoc.).
2. Electronic funds transfer (EFT) to the: **Defence Bank, BSB 803 205, Acct No. 20539747**  
(First three letters of account are ROY)
3. Credit card – use the PAYPAL option on [www.raacansw.org.au](http://www.raacansw.org.au)

The usual rates apply: \$20 for one year or \$50 for three years. For any questions on membership please check the RAACA Website.

Paying on this reminder helps the volunteer Committee and avoids getting a written reminder.

# Message Board

From: Michael Phillips [mailto:mike.phillips@optusnet.com.au]  
Subject: RE: ARMOUR Magazine

Hi,  
Thanks for a very interesting "Armour", on a sad note John Sedgely, who, among other things was the first Adjutant of 2nd/9th Armoured Regiment, died recently shortly after his 100th birthday. It's a pity he didn't get to see his article published as I have sent him a few RAACA publications in recent years and he has been grateful for the updates.

I will send on a copy of "Armour" to friends who will see that John's son gets to see his father's memoir.  
At the time of his death John (Lt.Col. J. Sedgely) was the oldest surviving graduate of RMC, he graduated in 1938.

Cheers,  
Mike P.

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From: Soldier On <media@soldieron.org.au>  
Subject: Job opportunities for veterans and their families  
Reply-To: Soldier On <media@soldieron.org.au>

## Job opportunities for veterans and their families

Last week was a big victory for the veteran community.

News outlets across the country reported on Wednesday how veterans and their spouses would be provided with greater access to job opportunities thanks to the support of Australian industry. The program being reported across television, online and print media was our Soldier On Veteran and Family Support Program. Then on Thursday the Prime Minister announced his Veteran Employment Program, which our program directly supports.

So far several organisations have committed to sign up to our Veteran and Family Support Program, including KMPG, Defence primes, health companies and information and communication technology companies, with many more expressing interest over the last few days.

We are extremely proud of our program. It is the first of its kind in Australia and it is a giant leap forward for the future of veterans and their families.

As news broke across the country, veterans from far and wide contacted Soldier On asking for our support. All of them welcomed the recognition of their service and focus on job opportunities. All of them also have their own stories of challenges faced during the transition process from the military to civilian life. We are so proud to be able to support them through their ongoing transition.

I want to take this opportunity to say thank you. The only reason this program exists is thanks to the generosity of the Australian people, industry and trusts.

While there is sometimes the misconception that Soldier On receives government funding, this is simply not true.

In our existence, government funding has contributed to less than one per cent of our overall funds.

It has been through your generosity and support that we have researched, developed and now implemented our world class Veteran and Family Support Program. We know these services have, and will continue, to change the lives of veterans and their families.

There is information about our Veteran and Family Support Program on our website. But in short, we are asking organisations to pledge their support to veterans and their families by recognising the remarkable skillsets, training and experiences of our modern veterans and providing them access to fitting job and training opportunities.

Through the program, we provide veterans and their families with a range of support services, including:

- Employment support services to assist veterans and their families identify their current skillsets and match them to desired career paths. If there are gaps in their skillset, we will investigate education and training opportunities. We will also help veterans and their families prepare their CV and applications for job opportunities and provide them with feedback post interviews, as well as identify short term and long term employment pathways.
- Mental health support to help veterans and their family members overcome impacts from their service or their loved one's service. This is provided through free counselling sessions with a Soldier On psychologist. We also provide relationship counselling services.
- Social connected programs and activities to help veterans and their families reconnect with themselves, others in the veter-



an community and the wider society. These activities and programs include golf days, men's weekends, spouse retreats, surfing days, art classes, writing classes and yoga.

Thank you again for your continued support. Together, we have created and rolled out a program that will change the future for veterans and their families across Australia. Now our aim, with your continued support, is to help as many veterans and families as possible.

Kind regards,

John Bale  
CEO and Co-Founder, Soldier On

Want to access our Veteran and Family Support Program?

Email [veteranemployment@soldieron.org.au](mailto:veteranemployment@soldieron.org.au) with your name, contact details and location.

Want to provide job opportunities to veterans and their families?

Email your contact details to [pledge@soldieron.org.au](mailto:pledge@soldieron.org.au).

Our mailing address is:

Soldier On  
Building One, 44 Bellenden St  
Crace, ACT 2911  
Australia

## Lost Souls

**If anyone knows the where-abouts of the following members would they please contact the RAACA Office**

*If nothing is heard within three (3) months regarding these listings the names will be removed from the RAACA membership list.*

Members Name	Last Address
Mr K Crocker	35 Lance Road DIGGERS REST VIC 3427
Mr G Greg Sheppard	9 Furphy Close ROMSEY VIC 3434
Mr W Halliday	10 Gynea Avenue SANCTUARY POINT NSW 2540
Mr NC (Noel) Whittle	56 Condong Street MURWILLUMBAH NSW 2484
Mrs AL Cabban	PO Box 127 KOOTINGAL NSW 2352
Mr AC (Alf) Diggerson	2 Downs Street PASCOE VALE VIC 3044
Mr RJ Ronald Rope	15 Gleneagles Avenue KILLARA NSW 2071
Mr RW Vippond	1/35 Kurrajong Crescent TAREE NSW 2430
Mrs A Hartridge	39 / 1 Wilkins Street MAWSON ACT 2607
Mr G (Gary) Creighton	PO Box 394 HALL ACT 2618
Mr NC Brenchley	"Manlindy" BENDERMEER NSW 2355
Mr NC Brenchley	PO Box 876 CROWS NEST NSW 2065
Mr BF Brian	840 Creek Road CARINA QLD 4152
Mr RW (Ron) Buckley	10 / 16 Mawarra Street PALM BEACH QLD 4221
Mr RJ (Rodger) Tock	1 / 21 Chessom Street MITCHELTON QLD 4053
RAACA (WA)	35 Pollard Cross WEST CARDUP WA 6122
Dr KD (Kevin) Smith OAM	PO Box 440 ARMIDALE NSW 2350
LTCOL J (John) Crossman	GPO Box 2135 HOBART TAS 7001
Mr LL Green OAM	16 Kitchner Street TAMWORTH NSW 2340
Mr A (Adrian) May	6 Judith Crescent MORPHETT VALE SA 5162
WO2 DJ (Derek) Simpson	Robertson Barracks PALMERSTON NT 0830
Mr WL Farlow	Box 111 "Gum Creek" LAKE CARGELLIGO NSW 2672
Sgt J (Rusty) Gates	44 Killarney Avenue BLACKTOWN NSW 2148
Mr LR Ashe	47 Wyee Farms Road WYEE NSW 2259
Mr LA Lynch	Lot 61 Oyster Cove Orion Drive YAMBA NSW 2464
Mr T (Trevor) Hyde	PO Box 1289 MILLICENT SA
Mr R (Robert) Oldfield	232 Caroline Chisholm Drive WINSTON HILLS NSW 2153
Mr DJ James	19 Shield Street MEDLOW BATH NSW 2780
Mr R (Richard) Simmie	1/29 Main Street PAKENHAM VIC 3810
Mr T (Trevor) Bence	126 Tamarind Drive BALLINA NSW 2478

# Leopard 2 Main Battle Tank, Germany

Leopard 2 is a main battle tank developed by Krauss-Maffei, now Krauss-Maffei Wegmann (KMW), of Munchen, Germany. The Leopard 2 is a successor to the successful Leopard 1.

Leopard 1 was first produced in 1963 by Krauss-Maffei for the German Ministry of Defence. More than 6,000 vehicles have been exported to Belgium, Denmark, Germany, Greece, Italy, Canada, the Netherlands, Norway, Turkey and Australia.



The successor to the Leopard 1, the Leopard 2, was first produced in 1979 and is in service with the armies of Austria, Canada, Chile, Denmark, Finland, Germany, Greece, the Netherlands, Norway, Poland, Portugal, Singapore, Switzerland, Sweden, Spain and Turkey, with more than 3,200 tanks produced.

In June 2010, KMW unveiled its next-generation main battle tank, Leopard 2 A7+. The tank was successfully tested and qualified by the German Army. Its main features include a modular protection kit, improved sustainability and increased mobility.

In July 2011, a deal to sell around 200 Leopard 2 A7+ to Saudi Arabia was approved by Germany's Federal Security Council.

## International orders for Leopard 2 and its variation models

The Finnish Army has bought 124 tanks and the Polish Army has bought 128 used Leopard 2A4 tanks from Germany. In August 2005, Greece placed an order for 183 used Leopard 2A4 and 150 Leopard 1A5 tanks from German Army reserves. In November 2005, an agreement was signed for the sale of 298 German Army Leopard 2A4 tanks to Turkey. In March 2006, Chile signed a contract for the acquisition of 140 Leopard 2A4 tanks from the German Army. The first was delivered in December 2007.

The Leopard 2A6 includes a longer L55 gun, an auxiliary engine, improved mine protection and an air-conditioning system. The German Army is upgrading 225 2A5 tanks to 2A6 configuration, the first of which was delivered in March 2001. The Royal Netherlands Army upgraded 180 of its 2A5 tanks to the 2A6 configuration, the first of which entered service in February 2003. In March 2003, the Hellenic Army of Greece ordered 170 Leopard 2 HEL (a version of the 2A6EX). The first 30 are being assembled by KMW, with the remainder by ELBO of Greece. The first locally built tank was delivered in October 2006. The Leopard 2A6 HEL entered service with the Hellenic Army in May 2008.

Spain has ordered 219 Leopard 2E (a version of the 2A6 with greater armour protection), 16 recovery tanks (CREC) and four training vehicles. The first 30 were built by KMW and the rest license-built in Spain by General Dynamics, Santa Barbara Sistemas (GDSBS). The first tank was handed over to the Spanish Army in June 2004 and deliveries concluded in 2008.

Another variant is the Leopard 2(S), which has a new command and control system and passive armour system. 120 Leopard 2(S) have been delivered to the Swedish Army. Deliveries concluded in March 2002.

In December 2006, it was announced that Singapore would buy 66 refurbished Leopard 2A4 tanks from the German Army, plus 30 additional tanks for spares. The tanks entered service with the Singapore Army in September 2008. In April 2007, Canada purchased up to 100 Leopard 2 tanks from the Dutch Army and leased 20 Leopard 2A6M tanks from the German Army. KMW delivered the first of the leased 2A6M tanks, which has been upgraded with improved mine protection and slat armour, in August 2007. The tank was deployed to Afghanistan later in August 2007. The Dutch Army retains a fleet of 110 2A6 tanks.

In October 2007, Portugal purchased 37 Leopard 2A6 tanks from the Dutch Army. The first eight were delivered in October 2008 and deliveries concluded in 2009.

In October 2010, Canadian armed forces took delivery of the first 20 Leopard 2A4M CAN modernized battle tanks from KMW. These tanks were deployed in Afghanistan to provide a high-level of protection and firepower to the Canadian soldiers. As of January 2011, five of the 20 tanks were sent to Afghanistan as a replacement for Leopard 2 A6M CAN, deployed there since 2007.



Rheinmetall Group received an order worth \$289.6m from the Indonesian Ministry of Defense in November 2013 to deliver tracked armoured vehicles and to provide logistical support services and ammunition.

Rheinmetall will deliver 103 overhauled and modernised Leopard 2 main battle tanks under the contract. It will also deliver 42 upgraded Marder 1A3 infantry fighting vehicles, 11 various armoured recovery and engineering vehicles, associated documentation, training equipment, logistical support services and an initial supply of practice and service ammunition.

Indonesia received first eight of 61 Leopard 2 RI (Republic of Indonesia) main battle tanks from Rheinmetall, in May 2016.

Rheinmetall received a €220m order from Poland in February 2016 to upgrade 128 Leopard 2 MBTs to Leopard 2 PL standard.

### **Mine protection system for improved crew safety**

KMW has developed a mine protection system for the Leopard 2, following a concept definition by an international working group from Germany, Switzerland, the Netherlands, Sweden and Norway, under the lead of the German procurement agency BWB. An order placed in September 2003 involved the modification of 15 Leopard 2A6 tanks for the German Army and ten Leopard 2A5 (Strv 122) for Sweden. The first mine-protected tank was delivered in July 2004.

The kit consists of add-on armour elements including a new plate under the tank floor, new vision systems and re-stowage arrangements for ammunition.

Trials in February 2004 demonstrated that, with the new armour package, Leopard 2 tank crews could survive the detonation of an anti-tank mine under the tank without suffering any injuries.

### **Construction of the Leopard 2 battle tank**

The hull comes in three sections: the driving compartment at the front, the fighting section in the centre, and the engine at the rear of the vehicle.

The driver's compartment is equipped with three observation periscopes. Space to the left of the driver is provided for ammunition stowage. A camera with a 65° horizontal and vertical field of view positioned at the rear of the vehicle and a television monitor provide a reversing aid for the driver.

The turret is located in the centre of the vehicle. There is an improvement programme which provides third-generation composite armour and additional reinforcement to the turret frontal and lateral armour, with externally mounted add-on armour modules. In the event of weapon penetration through the armour, the spall liner reduces the number of fragments and narrows the fragment cone. The spall liner also provides noise and thermal insulation. The reinforcement provides protection against multiple strikes, kinetic energy rounds and shaped charges.

### **Fire control capabilities of the main battle tank**

The commander's station has an independent periscope, a PERI-R 17 A2 from Rheinmetall Defence Electronics (formerly STN Atlas Elektronik) and Zeiss Optronik. PERI-R 17 A2 is a stabilised panoramic periscope sight for day / night observation and target identification, which provides an all round view with a traverse of 360°. The thermal image from the commander's periscope is displayed on a monitor.



The PERI-R17 A2 can also be used for weapon firing as it is built into the tank's fire control system. The image from the gunner's thermal sight can also be transmitted to the commander's PERI-R17 periscope so the commander can switch the gunner's video image to the commander's monitor. This enables the commander and the gunner to have access to the same field of view of the combat range. The gunner's station is equipped with a Rheinmetall Defence Electronics EMES 15 dual magnification stabilised primary sight. The primary sight has an integrated laser rangefinder and a Zeiss Optronik thermal sight, model WBG-X, which are both linked to the tank's fire control computer.

The thermal sight uses standard US Army common modules, with 120 element cadmium mercury telluride, CdHgTe (also known as CMT) infra-red detector array operating in the eight to 14 micron waveband. The infra-red detector unit is cooled with a Stirling closed-cycle engine.

The sight is fitted with a CE628 laser rangefinder from Zeiss Optronik. The laser is a Neodinium Yttrium Aluminium Garnet, (Nd:YAG) solid state laser.

The rangefinder can provide up to three range values in four seconds. The range data is transmitted to the fire control computer and is used to calculate the firing algorithms. Also, because the laser rangefinder is integrated into the gunner's primary sight, the gunner can read the digital range measurement directly. The maximum range of the laser rangefinder is less than 10,000m with accuracy to within 20m.

The command and fire control procedure known as first echo selection is used for laser range-finding for anti-helicopter operations. The principal weapon uses electronic firing to reduce reaction times.

## **Main armaments and weapons on Leopard 2**

A new smoothbore gun, the 120mm L55 Gun, was developed by Rheinmetall Waffe Munition of Ratingen, Germany, to replace the shorter 120mm L44 smoothbore tankgun on the Leopard 2. The extension of the barrel length from calibre length 44 to calibre length 55 results in a greater portion of the available energy in the barrel being converted into projectile velocity increasing the range and armour penetration. The L55 smoothbore gun, equipped with a thermal sleeve, a fume extractor and a muzzle reference system, is compatible with current 120mm ammunition and new high-penetration ammunition.

As a result of tactical requirements, Rheinmetall Waffe Munition developed the improved kinetic energy ammunition known as LKE 2 DM53. With the DM53 round the L55 gun can fire to a range of 5,000m. The effect of the kinetic energy projectile on an enemy target is achieved by the penetrator length and projectile mass and the impact velocity, and the interaction between the projectile and the target.

The penetrator material is heavy tungsten powder in a monoblock structure. The improved kinetic energy ammunition has higher muzzle energy and recoil forces. Especially when using the new DM 53 KE round, the L55 enables a 30% increase in performance compared with conventional systems. For example, a muzzle velocity can be achieved in excess of 1,750m/s.

Leopard 2 is equipped with a land navigation system from the company LITEF of Bonn, Germany, which is a subsidiary of Northrop Grumman (formerly Litton) of USA. The hybrid navigation system consists of a global positioning system (GPS) and an inertial navigation system.

## **KMW's MBT Leopard 2 support systems and tank engine**

A programme has been put in place to replace the H-WNA improved hydraulic system with E-WNA, which is an electrical weapon follow-up system. The replacement with the E-WNA provides the following advantages: the turret has no pressurised hydraulic fluid, lower noise level and lower power consumption and heat generation, improved reliability and lower maintenance and service requirements, saving in operating costs, and good long-term storage properties.

The crew compartment is equipped with a fire and explosion detection and suppression system which has been licensed by the company Deugra Ges. fur Brandschutzsysteme of Ratingen, Germany, from the UK company Kidde-Graviner of Slough, Berkshire. A fireproof bulkhead separates the fighting compartment from the engine compartment at the rear of the vehicle.

The engine is the MTU MB 873 diesel engine, providing 1,100kW (1,500shp), with a Renk HSWL 354 gear and break system. An enhanced version of the EuroPowerPack, with a 1,210kW (1,650shp) MTU MT883 engine, has been trialled on the Leopard 2.

### *Source of Information:*

*www.army-technology.com is a product of Kable. Copyright 2016 Kable, a trading division of Kable Intelligence Limited.*

## May 2016 NATO Armoured competition, Grafenwoehr Training Area, Germany

By Andy Wolf, Military News, U.S. Army



American tank crews were stopped in their tracks when they failed to even place in the top three slots of an American-sponsored NATO tank competition late last year.

Taking place at Grafenwoehr Training Area in Germany, the three-day competition was jointly-hosted by the US Army and German Bundeswehr. The event involved Germany, Denmark, Italy, Poland and Slovenia as well as the US, sending 1-2 platoons of four tanks, respectively.

The competition is the first of its kind held since 1991, when the Soviet Union dissolved. With the competition geared toward developing armoured warfare skills, the tank competition is directly correlated with the NATO mindset of countering the “aggressively-behaving” Russian Federation.

The tank crews were involved in offensive and defensive exercises, including obstacle courses, dismounted marksmanship and gunnery ranges. Other events involved dealing with IEDs, chemical attacks and medical emergencies.

Germany took first place with their new Leopard 2A6 armour, while Denmark and Poland took second and third using the older model of Leopard. The United States’ rank is unknown- it is only known that their M1A2 crews failed to make the top three.



This isn’t the first time the US Army’s Armor Corps has been handed their pride on a platter- Active Duty units were beaten in the US Army’s 2016 Sullivan Cup by a college student, aspiring police officer, insurance adjuster and Pepsi truck driver from the North Carolina National Guard, who took first place- with other competitors being the US Marines and Canadian Army.

Concerned with the Army’s performance in regards to modern warfare potential, Army Chief of Staff Mark Milley told the New York Times earlier this month that “today, a major in the Army knows nothing but fighting terrorists and guerrillas, because he came into the Army after 9/11. But as we get into the higher-end threats, our skills have atrophied over 15 years.”

With the “higher-end” threats being that of Russia, the US Army may need to train for armoured warfare against a competent (or even superior) enemy once again. With the Russians building new top-of-the-line armoured vehicles to counter the aging M1 Abrams fleet (that Congress continues to force upon the US Army).

American armour crews may risk more than a lost competition in the future if their performances continue to be subpar.

### Lest we Forget We regret to advise the passing of the following members

Mr RJ Peno 12 Armd Car Regt  
Mr R (Ronald) Hosford 2/1 Recce Sqn  
Mr BT (Bruce) Ryan 2/7AR  
Mr BJ (Basil) Booth 2/11 Armd Car Regt  
Mr D Dugald (Doug) McMillan

Major MH (Mick) Lewins RFD 1/15 RNSWL, 12/16HRL  
Mr M Kite  
COL Chris Donovan 2 Cav 3 Cav 1 FwdDelArmd Cn  
Mr DA Cruickshank 2/6 AR  
Mr RD Howarth



**The 15th Mechanised Infantry Brigade which is part of the NATO Multinational Battle Group based in Orzysz, Poland on manoeuvres with the 2nd Cavalry Regiment (US).**



*Photos courtesy of General Jarosław Gromadziński, Commanding Officer 15th Mechanised Infantry Brigade.*



## BMD-4M Infantry Fighting Vehicle, Russia



The BMD-4M is a new generation amphibious infantry fighting vehicle (IFV) manufactured by Kurganmashzavod JSC, for the Russian Army. The vehicle provides improved protection and support for the airborne troops.

The BMD-4M vehicle underwent a complex test according to an agreement signed by Russia's General Tank-Automation Command of the Ministry of Defence and airborne troops (VDV) in 2008.

The IFV was demonstrated in March 2008 and exhibited during the Russia Arms Expo (RAE) in September 2013. The vehicle officially entered into service with the Russian Army in April 2016.

The BMD-4M armoured infantry fighting vehicle was developed by Volgograd Tractor Plant and the Tula KBP Instrument Design Bureau. It is the modernised

variant of the BMD-4 airborne combat vehicle. The upgraded IFV vehicle has a length of 6m, width 3.15m and height 2.7m. The combat weight of the vehicle is 13.5t.

The new IFV features more spacious hull compared to its predecessor. The manned compartment accommodates up to two crew and six infantrymen. The driver is seated in the front and the engine is placed at the rear part of the hull. A satellite navigation system is incorporated to provide geographic location details. The vehicle also features a DigiArmament and protection of BMD-4M IFV

The airborne assault vehicle is armed with a 100mm 2A70 semi-automatic gun / missile launcher weighing 332kg. The 2A70 gun is coupled to a highly reliable 30mm 2A72 automatic cannon mounted on the turret. It can fire GSh-6-30 rounds with a muzzle velocity of 960m/s. The rate of fire is more than 300 rounds per minute. The launcher can fire either 3UOF17 or 3UOF19 rounds at a rate of ten rounds a minute. Its muzzle velocity ranges from 250m/s to 355m/s.

The secondary armament of the vehicle is a 7.62mm PKT coaxial machine gun, which can fire Arkan Tandem 9M117M1 and Konkurs anti-tank guided missile (ATGM) systems. The turret is also equipped with three smoke grenade dischargers each side at the front.

The vehicle is equipped with bullet-proof armour protection. The all-welded aluminium chassis and turret protect the crew and infantrymen from small arms fire.

The weapon system is integrated with an improved fire control equipment to provide the IFV with the ability to track and engage the targets while on the move. The fire control system incorporates a gunner's sight to identify the targets during both day and night, a commander's panoramic TV-aimed sight and an automatic target tracker.

The BMD-4M is powered by a multi-fuel, type UTD-29 diesel engine that produces a power of 500hp.

The armoured vehicle offers superior mobility in all terrains, thanks to increased track length and reduced ground pressure. It can accomplish a speed of 69.4km/h on highways and 10km/h afloat. It has a cruising range of 500km on highways. The ground clearance ranges from 130mm to 530mm.

An adjustable hydro-pneumatic suspension system connects the vehicle to six dual rubber-tyred wheels. The running gear and the chassis control system of the upgraded vehicle include more power-plant installation units. The chassis is also incorporated with control linkages, pumping devices and water jet propellers used in BMP-3 amphibious IFV.

The BMD-4M can be dropped from airplane using a parachute platform. It can also drive through the water.

*Courtesy of Army-Technology.com*





# GENERAL SIR HARRY CHAUVEL MEMORIAL FOUNDATION

*"He fought to win, but not at any price. He sought victory on his own terms."*

There are few memorials to Sir Harry Chauvel or grand statues. The men he led and who admired him so much are gone, yet other leaders of his time and achievements are still recalled. Why not him? The answer may well lie in the man himself. He was humble, modest and self-effacing despite the enormity of all his accomplishments. When asked why he had not written an account of his wartime experiences he remarked simply, "Leave it alone. These things will come into focus in time."

## THE SOLDIER

General Sir Harry Chauvel, GCMG, KCB was a soldier for more than fifty years. The boy who grew up riding horses in Tabulam on the Clarence River in Northern NSW, rose to be the first Australian to command a corps and the first Australian to be promoted to full General.

Cool, calm and courageous in times of danger, he was compassionate to his enemies and loved by his men, seeking recognition for their achievements on the battlefield whilst shunning the limelight himself.

Renowned for his planning and attention to detail. He led a Light Horse Brigade at Gallipoli and then a year later led the Australian and New Zealand Mounted Division across the Sinai to successes at Romani, Rafa and Magdhaba. His crowning moment was the successful charge he ordered at Beersheba on 31<sup>st</sup> October 1917, which was followed by the fall of Jerusalem before years end. After further fighting across Palestine, he led the triumphant entry into Damascus in early October 1918. Following the war, his contribution was recognized and honoured by many nations. In Australia he was appointed Inspector General and then Chief of the General Staff, helping to establish the army as a peace time force and striving to improve its training and preparedness.

Upon his retirement from the army in 1930 he continued his service to the nation in a wide array of involvements, including as director of numerous companies, Chairman of both the Australian War Memorial and the Shrine of Remembrance, patron of Melbourne Legacy and active support of the YMCA, Red Cross, RSSILA and St Paul's Cathedral in Melbourne.

With the advent of the Second World War and the creation of the Volunteer Defence Corps, Chauvel became its Inspector-In-Chief until his death in March 1945.

## THE FOUNDATION

The General Sir Harry Chauvel Foundation serves to perpetuate the memory of General Sir Harry Chauvel as an outstanding Australian. Through broadening the community's understanding of Chauvel's core values, leadership and service as well as his military achievements, the Foundation seeks to honour his memory and inspire future generations of Australians.

The Foundation activities are centred on 3 key areas: education, enduring values and commemoration.

1. **My Light Horse**–An education initiative to provide a framework for all Australian communities and schools to research the Australian Light Horse units raised from the areas in which they live. Participants will understand who joined the local Light Horse Regiments, where they served and what happened upon their return. The aim is to connect and educate communities across Australia around the history and legacy of Sir Harry Chauvel and the Light Horse. An annual project theme will guide a competition to be judged by the Foundation Board with a monetary award providing for an approved community education project.
2. **The Sir Harry Chauvel Award**– This award recognizes the humble, selfless heroes; the quiet achievers who work for the good of their communities and of the nation. The award seeks to perpetuate the outstanding qualities embodied by Chauvel and the Light Horsemen so they might inspire others to work in their communities and give something back to the society that nurtured them. The award is open to all Australians aged from 16-30 years, based in rural and regional Australia. The winner will be judged on the criteria embodied by Sir Harry's values of integrity, leadership and community service.
3. **The Sir Harry Chauvel Memorial Artwork**–A local artist will be commissioned to create a commemorative artwork of Chauvel to be launched in early 2018. It will serve as a reminder of the legacy of a great Australian and the aims of this Foundation.

These three objectives will serve to advance Sir Harry's values and example for future generations. The program will launch in 2017 during the centenary commemoration of the charge at Beersheba.

## YOUR SUPPORT

The launch of the foundation on 29<sup>th</sup> October 2017 is rapidly approaching and we are seeking interested parties and philanthropic donors to assist the Foundation's delivery of its aims. Please forward all inquiries to:

[info@chauvelfoundation.com](mailto:info@chauvelfoundation.com)

LTCOL Graeme Smith RFD  
Foundation President  
General Sir Harry Chauvel Foundation Inc.  
PO BOX 468, Drysdale, Vic, 3222

Help us to honour the life of a humble Australian hero and ensure that his legacy lives on for future generations.

*The General Sir Harry Chauvel Memorial Foundation Inc. A0095567J*  
[www.chauvelfoundation.com](http://www.chauvelfoundation.com)



1/15th RNSWL Vehicles





## Dear Members of the RAAC Community,

The history of our corps is a long and proud one. From its beginnings as the Australian Light Horse and later the Australian Armoured Corps of World War 2, the Royal Australian Armoured Corps places great importance on carrying on with tradition and ensuring our proud history is remembered.

An important aspect of this history, and one that is central to the identity of the corps and its regiments is the wearing of insignia – badges and patches that uniquely identify a unit as well as keep tradition and history alive.

My intention is to document the uniforms, badges, patches and insignia worn within the corps since 1948 (when the modern post war corps was re-raised) so as this to preserve our proud history.

Much of the insignia worn over the years has been unofficially made and designed by soldiers and reflects the humour and personalities found within various troops and squadrons.

As such, I'd like to put a call out to the wider RAAC community, but past and present, to assist me in my search for examples of unofficial patches – especially unofficial troop and squadron

patches worn during the Vietnam War and later during the 1970s/80s/90s.

I'm also keen to know the stories behind unofficial patches – so if anyone was involved in designing or getting a patch made, I'd love to hear the story behind the design. It's these designs done by characters of the RAAC that add much flavour and interest to our history.

I am also looking for troop and squadron patches worn on deployment to Timor, Iraq and Afghanistan.

Once research has been completed, my aim is to produce a digital eBook (free to all ex and current members of the corps and of course, all contributors to this project) and a physical book at a later stage.

So if anyone can assist me with examples of patches, I would love to hear from you. I would also love to see photos of uniforms, patches and badges being worn since 1948. If anyone has any photos that I could use in this project, I'd love to hear from you.

Mick Martin  
Ex 2/14 LHR  
Email: marmi01@gmail.com

*And don't forget to check out Save the Black Beret Facebook page – RAAC content on the internet.  
<https://www.facebook.com/theblackberet> 11,000 followers and growing!*



# Thank you for helping us fund the national memorial to Boer War veterans

23,000 people from Australia went to war in South Africa between 1899 and 1902, and some 1,000 died there. We sent 43,000 horses of which none returned.

Our first six Victoria Crosses were awarded there, along with 161 other bravery awards.

In 2006 the Federal Government agreed to provide a Site in Anzac Parade Canberra for a Boer War Memorial. Since then our volunteers, with your help and many other very generous donors, have raised the \$4 million needed to build the memorial. Our program is described in detail at: [www.bwm.org.au](http://www.bwm.org.au)

We selected the design illustrated in the sketch at the base of this page ie; **FOUR MOUNTED TROOPERS IN BRONZE** 150% life size. Each sculpture costs \$1/2 million. The President, Colonel John Haynes (Retd) OAM and members of the National Boer War Memorial Association express their grateful appreciation for the assistance of so many Australians in funding this worthy national project.

**John Haynes**  
[john.haynes@defence.gov.au](mailto:john.haynes@defence.gov.au)

***Pictured, as numbered, are the 4 mounted troopers that comprise the Troop on Patrol in the South African Veldt.***



## NATIONAL BOER WAR MEMORIAL ASSOCIATION

### National Patron:

Air Chief Marshal Mark Binskin AC, Chief of the Defence Force

National Boer War Memorial Association Inc. • ABN 29 293 433 202

Victoria Barracks, 75 Oxford Street, Paddington NSW 2021

Tel (02) 8335 5209 • Fax (02) 8335 5357 • Email: [secretary@bwm.org.au](mailto:secretary@bwm.org.au)

# Vale

## Vale Ray Bates

It is with sadness that we note the passing of Ray Bates. Ray Joined the Regiment in 1966 and rose to the rank of Sergeant before taking his discharge to serve with 6 RAR in Vietnam. Ray was a member of the St Marys RSL sub-branch.

Ray passed away in the closing stages of 2016.

sincerely,  
John Howells  
Hon Secretary, Royal New South Wales Lancers Association

# Vale

## VALE Major Barrie Hodgson

It is with great sadness I advise that our friend and colleague Major WBE (Barrie) Hodgson passed away in February 2017 at his NSW Central Coast nursing home. Barrie's wife Judith tells us that he has been very sick for a long time.

Barrie served with me during the 1970s and 1980s, his noted contributions were to revive the horse mounted troop for the Regimental Centenary in 1985, and later as a Museum volunteer setting up the photo gallery on the CO's stair. Commissioned later than most, Barrie had not quite reached the 15 years for a Reserve Forces Decoration when required to retire aged 47.

Our thoughts are with Judith, Barrie's two boys and their families.

Sincerely,  
John Howells  
Hon Secretary, New South Wales Lancers Memorial Museum Inc

# Vale

## VALE Major Michael Lewins RFD

It is with great sadness I advise the passing of our friend and colleague Major Michael Lewins RFD.

In the Army, he served with distinction in 12/16 HRL, 1/15 RNSWL, 2IC UNSWR and in other postings. When he retired, his service did not end, he volunteered for the Lancers' Museum, Parramatta, serving as President of the Museum's committee of management in the 1990's and on the committee of the Royal Australian Armoured Corps Association NSW Branch. In civil life Mick worked for the Commonwealth Bank; he was branch manager at Kingsgrove where he set up the Lancers' Museum bank accounts. Accounts are still active and based at the Commonwealth Bank, Kingsgrove.

Mick passed away Wednesday 14 December 2016 after a long illness.  
His funeral was held at St Michael's Thirroul, Thursday 22 December 2016,

Sincerely,  
John Howells  
Hon Secretary, New South Wales Lancers Memorial Museum Inc

# Vale

## Vale Alan Howitt

It is with sadness that I note the passing of one of our few remaining World War 2 veterans.

Allan Howitt lived 25 April 1923 - 03 March 2017, he is survived by his wife Margaret, two daughters and two sons. Allan was a Matilda Tank crew member in Lieutenant Allan Aynsley's 2 Troop B Squadron 1st Army Tank Battalion (RNSWL) in New Guinea 1943 - 44 and 1st Armoured Regiment (RNSWL) in Balikpapan, Borneo from 01/07/1945 to Japan's surrender on 15/08/1945.

His funeral was held in the chapel at Frenchs Forest Lawn Cemetery, 10 March 2017 at 1100hrs.

Sincerely,  
John Howells  
Hon Secretary, New South Wales Lancers Memorial Museum Inc





# **SYDNEY ANZAC DAY MARCH**

## **UPDATE No. 1/2017**

The Order of March for 2017  
(There are no changes to the form up positions)

1. Police Escort	22. State Rail & State Transit	43. Royal Australian Army Nursing Corps
2. Taxis & Buses	23. Post WWII Army Commander	44. Australian Army Psychology Corps
3. Australian National Flag Contingent	24. Korean War	45. Women's Royal Australian Corps
4. Mounted Police	25. Australian Army Training Team Vietnam	46. United Nations & Peace Keeping Forces
5. March Leader	26. Royal Australian Armoured Corps	47. Army Reserves
6. Senior ADF Officers	27. Royal Australian Artillery	48. National Servicemen
7. Victoria Cross Recipients	28. Royal Australian Engineers	49. Officer Training Unit
8. RSL of Australia (NSW Branch)	29. Royal Australian Survey Corps	50. Post WWII RAAF Commander
9. RSL Corps of Guards	30. Royal Australian Corps of Signals	51. Post WWII Royal Australian Air Force
10. South African Veterans and Memorial Horse & Banner	31. Royal Australian Infantry Corps	52. Post WWII War Correspondents
11. WWII Veterans Memorial Horse	32. Special Forces	53. Entertainers
12. WWI Unit Flags	33. Australian Army Aviation Corps	54. SEATO
13. New Zealand	34. Australian Army Intelligence Corps	55. Australian Red Cross
14. NSW Police	35. Royal Australian Electrical & Mechanical Engineers	56. Civilian Air Crew
15. WWII Navy & Merchant Navy	36. Royal Australian Army Chaplains Department	57. Sydney Legacy
16. WWII Army	37. Royal Australian Corps of Transport	58. Descendants of Boer War Veterans
17. WWII Air Force	38. Royal Australian Army Medical Corps	59. Descendants of WWI Veterans
18. Occupation Force (BCOF)	39. Royal Australian Dental Corps	60. Descendants of WWII Veterans



# **SYDNEY ANZAC DAY MARCH UPDATE**

**No. 2/2017**

## **Policy**

This update is to remind sub-Branch and Association members of the criteria for participating in the Sydney ANZAC Day March and provide some general guidelines. Once again it is important that this information is disseminated as widely as possible.

There are three ways by which an individual can participate in the March: (i) as an Australian veteran, (ii) as the descendant of an Australian veteran (iii) as a veteran or descendant of a Commonwealth or Allied force.

We ask that people keep an eye on the RSL NSW website and encourage all associations to register to receive these updates.

## **Australian Veteran**

Veteran eligibility to march is based on the criteria to become a Service Member of the RSL i.e. any person who has served in the Australian Defence Force for at least 6 months. Veterans should assemble with one of the service units of which they were/are a member. The choice of where to march is a personal one however it is recommended that those who served together should march together as an act of remembrance and mateship.

## **Descendant of an Australian Veteran**

A descendant of a veteran can march with veterans as a carer (one per veteran marching), banner party or flag carrier regardless of whether they are entitled to be a member of the RSL or not. All other descendants are invited to march with the descendants associations in a place of prominence in front of the Commonwealth and Allies contingent. One descendant only of a deceased veteran may honour their relatives service by wearing his/her medals on their right breast.

## **Commonwealth or Allied Veteran/Descendant Veterans**

Veterans should be clearly identifiable by their campaign medals and should be at the head of each national group.

No medals or awards earned whilst a nation was in conflict with Australia or the Commonwealth shall be worn in the Sydney ANZAC Day March.

Dress should reflect the occasion i.e. traditional/national costume or dress (including headdress) is not appropriate.

Both the British Commonwealth and Allied contingents will form up in alphabetical order as printed in the March Broadsheet and under the direction of the March Marshals. Displays of foreign national flags are restricted to 1 per group.

No flag of a nation that was used when that nation was in conflict with the Commonwealth or Australia is permitted to be displayed.

Display of historical flags or ensigns of countries that no longer exist is inappropriate.

Banners are restricted to 1 per group and are not to contain any political slogans. The display of photos or other memorabilia is not permitted.

### **Descendants of Allied Veterans**

Descendants of veterans are encouraged to participate to honour the fallen at the express invitation of the contingent leader/organiser.

Descendants are to march behind the veterans within the national group.

Once again, dress should reflect the occasion i.e. traditional/national costume or dress (including headdress) is inappropriate.

The national group may have no more than 30 descendants of veterans participate including banner party and flag bearers.

### **General Policies**

Veterans who are unable to march should make use of the taxi service provided at the beginning of the March (contact ANZAC House for bookings).

The Sydney ANZAC Day March is not a parade and therefore no vehicle, animal, weaponry or memorabilia (including historical uniforms) may be included without the prior approval of the March organisers.

Escorts to Colours etc. and catafalque parties may carry arms. Otherwise service contingents should only carry arms when authorised by the ANZAC Day March Executive Committee c/- ANZAC House.

As the head of each unit approaches the ANZAC Memorial, hats are to be removed (by following the unit leader's movements or by order) and the right hand held over the heart and kept in that position until the unit is clear of the ANZAC Memorial, when the reverse is to be followed.

Heads are to be turned left towards the ANZAC Memorial when passing it. Banners and Flags are to be dipped. Defence Force formations are to salute the ANZAC Memorial as they pass it.





# ANZAC DAY SYDNEY MARCH MAP 2017

## Key

- Band Chute
- Cenotaph
- Veterans' Seating
- Participant Flow
- March Path
- Wheelchair Accessible Viewing Area

## Contingent

- 1 Police Escort
- 2 Taxis And Buses
- 3 Australian National Flag Contingent
- 4 Mounted Police
- 5 March Leader
- 6 Senior ADF Officers
- 7 Victoria Cross Recipients
- 8 RSL of Australia (NSW Branch)
- 9 RSL Corps of Guards
- 10 Sth African Veterans Memorial Horse & Banner
- 11 WWI Veterans Memorial Horse
- 12 WWI Unit Flags
- 13 New Zealand Veterans
- 14 NSW Police
- 15 WWII Royal Australian Navy (incl Merchant Navy)
- 16 WWII Australian Army
- 17 WWII Royal Australian Air Force
- 18 Occupation Force (BCOF)
- 19 Fire & Rescue NSW
- 20 Post-WWII RAN Commander
- 21 Post-WWII Royal Australian Navy (RAN) (incl Merchant Navy)
- 22 State Rail & State Transit
- 23 Post-WWII Army Commander
- 24 Korean War
- 25 AATTV
- 26 Armour
- 27 Artillery
- 28 Engineers
- 29 Survey
- 30 Signals
- 31 Infantry
- 32 Special Forces
- 33 Army Aviation
- 34 Intelligence
- 35 RAEME
- 36 Chaplains
- 37 Transport
- 38 Medical
- 39 Dental
- 40 Ordnance
- 41 Catering
- 42 Military Police
- 43 Nursing
- 44 Psychology
- 45 WRAAC
- 46 United Nations & Peacekeeping Forces
- 47 Army Reserve
- 48 National Servicemen
- 49 Officer Training Unit
- 50 Post-WWII RAAF Commander
- 51 Post-WWII Royal Australian Air Force (RAAF)
- 52 Post-WWII War Correspondents
- 53 Entertainers
- 54 SEATO
- 55 Australian Red Cross
- 56 Civilian Air Crews
- 57 Sydney Legacy
- 58 Descendants Of Boer War Veterans
- 59 Descendants Of WWI Veterans
- 60 Descendants Of WWII & Post WWII Veterans
- 61 UK & British Commonwealth Forces
- 62 Allied Troops

