

The
Royal Australian Artillery
LIAISON LETTER

Spring 2015



**The Official Journal of the Royal Regiment of Australian Artillery
Incorporating the Australian Gunner Magazine**

First Published in 1948



RAA LIAISON LETTER

Spring Edition 2015

Incorporating the
Australian Gunner Magazine

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NEXT EDITION CONTRIBUTION DEADLINE

Contributions for the Liaison Letter 2016 – Autumn Edition should be forwarded to the Editor by no later than **Friday 12th February 2016**.

LIAISON LETTER ON-LINE

The Liaison Letter is on the Regimental DRN web-site – <http://intranet.defence.gov.au/armyweb/Sites/RRAA/>. Content managers are requested to add this to their links.

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Contributors are urged to ensure the accuracy of the information contained in their articles. The Royal Australian Artillery, Deputy Head of Regiment and the RAA Liaison Letter editor accept no responsibility for errors of fact.

The views expressed in the Royal Australian Artillery Liaison Letter are the contributors and not necessarily those of the Royal Australian Artillery, Australian Army or Department of Defence. The Commonwealth of Australia will not be legally responsible in contract, tort or otherwise for any statement made in this publication.



RAA Gunners' Fund



What is it?

The RAA Gunners' Fund is designed to provide a source of funds that can be used to benefit all Gunners.

One of the important uses for the fund is to support requests from RAA units to assist in the preservation and promotion of the Regimental heritage.

The fund has been operating for over 50 years and has drawn its monies from Benefactors mainly officers, warrant officers and senior NCO.

The fund is supervised by the Regimental Committee.

What does it do?

The fund will support:

- Extra Regimental activities
- Awards to individuals
- Activities to benefit RAA members not funded by public money
- Safe guard, maintain and purchase items of Regimental property
- Preserve RAA history and heritage
- Record unit histories

How do I join?

See the 'Gunners' Fund' subscription advertisement located in the Associations & Organisations Section of the RAA Liaison Letter.



Individually Numbered Key Ring and Members Only Raffle



BUCKINGHAM PALACE

17th July, 2015.

Dear Brigadier Warner,

I have been asked to thank you for your kind letter containing a message of loyalty to The Queen.

This has been shown to Her Majesty and I now have pleasure in enclosing her reply.

Yours sincerely,

A handwritten signature in blue ink that reads "Samantha Cohen".

Samantha Cohen
Assistant Private Secretary to The Queen

Brigadier A. G. Warner, AM, LVO.



BUCKINGHAM PALACE

Brigadier A. G. Warner, AM, LVO,
Representative Colonel Commandant,
Royal Regiment of Australian Artillery.

Please convey my warm thanks to the Colonels Commandant, the Head of Regiment and all Ranks of the Royal Regiment of Australian Artillery for their message of loyalty, sent on the occasion of Royal Australian Artillery Day commemorating one hundred and forty-four years of dedicated service to Australia.

As your Captain-General, I much appreciate your thoughtfulness in writing as you did and, in return, send my good wishes to all troops who have returned from operations as well as to all members of the Regiment who are currently serving overseas.

ELIZABETH R.

1st August, 2015.

CDF AUSTRALIA SIGNAL

240351Z APR 15

SUBJ: MESSAGE FROM THE PRIME MINISTER TO ALL MEMBERS OF THE ADF ON ANZAC DAY 2105

1. THE FOLLOWING MESSAGE TO THE ADF IS FROM THE PRIME MINISTER OF AUSTRALIA, THE HONORABLE TONY ABBOTT, MP. THE SIGNED VERSION IS AVAILABLE AS A PDF VIA THE CDF'S DRN INTRANET SITE (DIRECTIVES AND SPEECHES).

2. TODAY WE MARK THE CENTENARY OF THE LANDING AT GALLIPOLI. IN THE EARLY DAWN OF 25 APRIL 1915, AUSTRALIAN TROOPS CAME ASHORE AT ANZAC COVE. IT WAS A SUNDAY AND, BACK IN AUSTRALIA, PEOPLE ATTENDED CHURCH, CHILDREN PLAYED BACKYARD SPORT AND FAMILIES CAME TOGETHER TO SHARE A MEAL. THAT DAY AND THROUGHOUT THE GALLIPOLI CAMPAIGN, OUR FOREBEARS FACED TRIALS SCARCELY IMAGINABLE TO THOSE THEY HAD LEFT BEHIND.

3. ON THE DAY OF THE LANDING, SOME 750 AUSTRALIANS WERE KILLED. MORE THAN 8,700 AUSTRALIANS WOULD LOSE THEIR LIVES BEFORE THE EVACUATION EIGHT MONTHS LATER. MANY OF THOSE WHO FOUGHT AT GALLIPOLI WENT ON TO SERVE ON THE WESTERN FRONT. THERE, LED BY SIR JOHN MONASH, PERHAPS THE FINEST ALLIED GENERAL, AND INSPIRED BY THE ANZAC SPIRIT, OUR SOLDIERS HELPED TO TURN THE TIDE OF THE WAR. IT WAS A WAR IN WHICH OUR NATION'S IDENTITY WAS FORGED - IN THE MAGNIFICENT DEFEAT AT GALLIPOLI, IN THE TERRIBLE VICTORY ON THE WESTERN FRONT AND IN THE SUCCESSFUL ADVANCES IN THE MIDDLE EAST.

4. WHEREVER THEY FOUGHT, OUR SERVICEMEN AND WOMEN EMBODIED THE COMMITMENT TO FREEDOM, THE SPIRIT OF ADVENTURE AND THE BONDS OF MATESHIP THAT WE HOLD DEAR TO THIS DAY. THEIR EXAMPLE IS EMULATED BY THOSE WHO HAVE SERVED OUR COUNTRY SINCE AND WHO ARE NOW ON ACTIVE DUTY AROUND THE WORLD.

5. WHENEVER OUR SERVICE PERSONNEL ARE CALLED UPON TO DEFEND OUR VALUES, YOU DO SO WITH DISTINCTION. YOU ARE WORTHY HEIRS TO THE ANZAC LEGACY.

6. TODAY, AS THE LAST POST ECHOES ACROSS MEMORIALS AND PARKS, BEACHES AND MILITARY BASES, WE HONOUR THOSE WHO FOUNDED THE ANZAC LEGEND AND ALL THOSE WHO HAVE FOLLOWED IN THEIR PATH.

7. LEST WE FORGET.BT



Australian Army

Royal Regiment of Australian Artillery

I5061161

**Representative Colonel Commandant
Colonels Commandant
Commanding Officers
Battery Commanders
All Ranks of the Royal Regiment of Australian Artillery
Associations and affiliated friends of the Regiment**

ANNIVERSARY GREETINGS TO THE ROYAL REGIMENT OF AUSTRALIAN ARTILLERY – 1 AUGUST 2015

I would like to congratulate the Regiment on the occasion of its 144th Anniversary.

There are many celebratory events occurring which are associated with the ANZAC Centenary. I have no doubt that every RAA unit and associations have their special ways of commemorating not only their own anniversaries, but more so their collective contribution to our glorious past. We are also nurturing our linkages with our gunner brethren overseas. We are planning to host goodwill sporting events and support other activities next year as part of our contribution to the Royal Artillery's tercentenary celebrations.

RAA Associations are making their presence felt this year. The RAA Historical Company's restoration of an 18 pounder gun and ammunition limber, complete with horse team and gun detachment has been a resounding success and is available to support commemorative events out to 2018. Congratulations to this worthy and proud endeavour.

I look forward to the various events around the Regiment to honour not only our illustrious history, but our recent endeavours on operations as well.

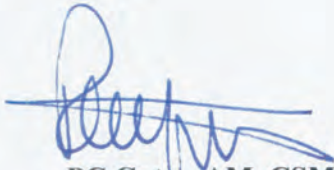
We are taking advantage of our current focus in training within a contemporary warfare environment. The RAA Command Post Exercise is in its third year. It strives to bring together all the artillery regiments and others within the realm of fire support to learn from each other and harness technological advancements of modern artillery. It is proving its worth as an annual training milestone for the Regiment. Our gunners are excelling in their roles as essential members of the combined arms team, be it as offensive support, modern surveillance and target acquisition, joint fires and battlefield coordination elements in large scale exercises such as EX HAMEL and EX TALISMAN SABRE.

Although most major elements have now returned from Afghanistan, the ADF's continuing fight against terrorism continues of which the RAA is a major player. Amidst our celebrations let us continue to think of our Gunners who are still deployed in various parts of the globe. Their families share in their sacrifices and it is incumbent on us to support them while they are away.

Let us also take the time to remember the many long serving members of the Regiment who have recently passed away and please join me in appreciating their service. They will be sadly missed.

On behalf of the Representative Colonel Commandant and Colonels Commandant, I congratulate all ranks of the Royal Regiment of Australian Artillery, serving and former, for their service.

Ubique



PC Gates, AM, CSM
Brigadier
Head of Regiment

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14 July 2015

‘Big Sky Publishing’ Incentive Prizes

BIG SKY PUBLISHING provides incentive prizes to encourage individuals to contribute to the Liaison Letter. The prizes are awarded by the Liaison Letter Editor.

I am pleased to announce the incentive prizes for this edition are awarded to Captain Richard Lever and Lieutenant Anthony Lewis from 4th Regiment RAA; and Bombardier Alex Carless from 8th/12th Regiment RAA.

Captain Richard Lever will receive a copy of ‘Our Friend the Enemy: A detailed account of Anzac from both sides of the wire’ by David W. Cameron for his professional paper on ‘Affirmative Action in Defence’.

Lieutenant Anthony Lewis will receive a copy of ‘Fire Support Bases Vietnam: Australian and Allied Fire Support Base Locations and Main Support Units’ by Bruce Picken for his professional paper on ‘Mental and Emotional Resilience Training Re-Examined’.

Bombardier Alex Carless receive copies of ‘Sudan 1885’ by Michael Tyquin and ‘Shot Down: A secret diary of one POW's long march to freedom’ by Alex Kerr for his contribution as a result of his visit to Gallipoli this year for the Battle of Lone Pine commemoration entitled ‘My Family in World War One’.

Congratulations to everyone. I look forward to receiving even more quality contributions from across the Regiment for the Liaison Letter 2016 – Autumn Edition.

I would like to acknowledge and thank Big Sky Publishing for their continuing support of the Liaison Letter and encourage all our readers and especially those interested in Australian military history to visit www.bigskypublishing.com.au or the military section of your local book shop.

Regimental Headquarters
The Royal Regiment of Canadian Artillery
Canadian Forces Base Shilo
PO Box 5000 Stn Main
Shilo MB R0K 2A0



Quartier général régimentaire du
Régiment royal de l'Artillerie canadienne
Base des Forces canadiennes Shilo
PO Box 5000 Stn Main
Shilo MB R0K 2A0

01 May 2015

C/- SO2 Head of Regiment
Headquarters School of Artillery
Bridges Barracks
Puckapunyal MILPO
VIC 3662 AUSTRALIA

Dear Sir:

On behalf of The Royal Regiment of Canadian Artillery I respectfully request that the enclosed Greeting be forwarded to the Colonel Commandant.

Your assistance in conveying this message is most appreciated.

Yours truly,

A handwritten signature in black ink that reads 'James Selbie'.

J.J. Selbie, O.M.M., C.D.
Brigadier-General (Retired)
Colonel Commandant
The Royal Regiment of Canadian Artillery

Enclosures: 1





*The Colonel Commandant and All Ranks of
The Royal Regiment of Canadian Artillery extend Greetings
to the Representative Colonel Commandant and All Ranks
of the Royal Regiment of Australian Artillery, on Artillery
Day, the Twenty-six day of May, Two Thousand and
Fifteen.*

*Le colonel commandant et tous les membres du Régiment
royal de l'Artillerie canadienne saluent le colonel
commandant représentant et tous les membres du Régiment
royal de l'Artillerie australienne, à l'occasion de la Fête de
l'Artillerie le vingt-six mai deux mille quinze.*

Editor's Comment



Welcome to the Liaison Letter 2015 – Spring Edition. I have been extremely impressed by the level and quality of submissions. Lieutenant Colonel Dave Edwards in his Deputy Head of Regiment section makes reference to the continuing improvement in the content size and quality of the Liaison Letter during his tenure. I wholeheartedly support his comment and would like to acknowledge his very positive support and enthusiasm towards the publication. He has actively taken every opportunity to promote the Liaison Letter to anyone who would listen especially as to the merits for taking the time to contribute.

The professional papers section of this edition stands as a final testament to the support provided by members of his Regiment.

He observed to me the other day that he was hoping to make the last issue under his stewardship a 'massive' edition. Well I think you will all agree with me after reviewing the content of this edition that he has achieved his aim. I would also like to particularly acknowledge the support I have received from Lieutenant Colonel Damian Hill, during his tenure as Commanding Officer of 4th Regiment RAA. The quantity and quality of contributions from both himself and members of his Regiment has been of a sustained high level. The professional papers section of this edition stands as a final testament to the support provided by members of his Regiment.

I strongly commend the efforts of those who have contributed to the 'Professional Papers Section'. Apart from Major Tom Drew's paper entitled 'Indirect Fires and the Reinforced Combat Brigade' the remaining eight papers have been provided by officers from the 4th Regiment. It is not only the number of papers but the quality and diversity of the subjects and content is outstanding. I was impressed that the authors were prepared to take on challenging and sometimes politically sensitive topics, in an intellectual, thoughtful and mature manner. Whilst all the papers are most rewarding to read I personally especially enjoyed Captain Richard

Lever's on 'Affirmative Action in Defence' and Lieutenant Anthony Lewis's on 'Mental and Emotional Resilience Training Re-Examined'. I encourage everyone to make time to read all these papers.

The 'Around the Regiment Section' contains a cross section of articles from all three gun regiments. On a poignant note there is a very well written article by Captain Matthew Manning from 8th/12th Regiment on the GLTD coordination of a Hellfire engagement from ARH. Sadly Captain Manning died recently and there is a contribution celebrating his life in the 'Vale Section' of the Cannonball Journal.

The 'Rest Section' has an unusually high and diverse number of contributions and topics ranging from RMC Sandhurst via ceremonial swords to dedicated contractor support for AFTADS. I congratulate the members of 105th Battery whose service in 1965-1966 in South Vietnam was recognised by the Republic of Vietnam in 1970 with the award of the Republic of Vietnam Cross of Gallantry with Palm Unit Citation but has only recently been recognised by the Australian honours system. The well written article by Colonel Arthur Burke OAM (Retd) entitled 'A Long Time Coming' explains the background to this well deserved award. Albeit late but a most welcome inclusion is an article by Bombardier Alex Carless from 8th/12th Regiment as a consequence of his visit to Gallipoli for the Battle of Lone Pine commemoration this year. The thrust of his article focuses on the service of two relatives who served in the campaign.

I will leave readers to draw their own conclusion and / or express their opinion.

The 'Capability and Training Section' further extends the range and depth of subject areas addressed by contributors. I think everyone will find the 'Soldier Combat System' update by Lieutenant Colonel Benjamin McLennan informative, while others will enjoy reading about the 'simulation' innovations in training for local defence in the contribution from Captain Pat Benson from 1st Regiment.

Editors Note: Unfortunately, due to unforeseen circumstances, the contribution by Brigadier Craig Furini for the 'Five Minutes With ...' section has been postponed to the next edition of the Liaison Letter.

When I was considering who I should invite to participate in my 'Five Minutes With ...' section I had reason to review the list of current senior Gunner officers. The relative lack of replacements for those who have recently left made me pause and take

stock for a moment or two and wonder was it simply the draw down in parallel to that of operations or another situation. The scenario to which I refer is that from my observation of senior appointments over many years is that there seems to be a 'Corps' cycle. What I mean is that if you take a 'snap shot' in time there are often groups of like minded and backgrounded officers holding the majority of senior appointments in Army eg this is particularly the case with regard infantry. Perhaps I am completely wrong in my observation and it is simply that there are a larger number of infantry officers and consequently more of them tend to achieve higher ranks. I will leave readers to draw their own conclusion and / or express their opinion.

Whilst I was personally extremely pleased to see this editions 'Five Minutes With ...' section participant Brigadier Craig Furini promoted, it made me reflect that there is a significant seniority gap between him and the remaining three Gunner one star officers. I thought – 'Where are those one stars that should be filling this void?' Perhaps I answered my own query momentarily later ... 'We have had two one stars promoted within the last 12 months – Major General's Greg Bilton and David Coghlan.' Perhaps there are some further Gunner one star officer appointments pending – I certainly hope so.

I congratulate those contributors who have been awarded a 'Big Sky Publishing Incentive Prize'. I thank and acknowledge the generous support provided by Big Sky Publishing and their staff to the Liaison Letter. I encourage everyone to visit the Big Sky website and view their comprehensive military catalogue or alternatively the military section of your local book shop and lookout for Big Sky Publishing books.

I have not seen the mess membership so energised and vibrant or the physical facility espousing such a positive atmosphere nor so well presented for many years.

Regimental Messes

Those who have read my editors comment over the years will appreciate that I have a particular interest in Messes and the associated culture and traditions especially within the Regimental Officers Mess. I would just like to briefly acknowledge the efforts made by the Lieutenant Colonel Dave Edwards as Commanding Officer of the Mess and Major Gary Down as the out going President of the Mess Committee. I have not seen the mess membership

so energised and vibrant or the physical facility espousing such a positive atmosphere nor so well presented for many years. I congratulate both individuals personally and on behalf of all officers of the Royal Regiment. I would also like to compliment Lieutenant Colonel Edwards on his dedication as Grounds Member since joining the illustrious ranks of the living in members. The surrounds of the Mess look extremely presentable and most importantly afford a pleasant and liveable environment.

I have always thought Army culture was about fostering the collective group and not about the individual ...

I have made this observation previously however in my view membership of the Regimental officers or sergeants messes is unique. There are very few other 'exclusive' clubs in the country that you have to actually earn your membership eligibility rather than simply purchase your entry. Some may argue that this 'exclusiveness' has changed somewhat in more recent times as culture has evolved within the Department of Defence. Nevertheless in my view both messes are very special places and whilst in my opinion Mess fees are always an unnecessarily vexed issue, it particularly disappointed me recently when I heard about the reluctance of some Reserve officers to agree to pay realistic fees to the Regimental Officers Mess. Whether you use the Mess or not is another matter – ultimately that is your choice. I have always thought Army culture was about fostering the collective group and not about the individual therefore Mess membership should not be a choice but mandatory for the benefit of the team.

My final observation about the Regimental Mess is in relation to commercial management contracts and their implementation. Towards the end of last year here at the School of Artillery there was much fanfare in regard to changes in regard the new catering contract. Naturally the bottom line was all about saving money and one of these changes was that there would no longer be table service and henceforth the use of a buffet would be the norm. I personally saw this decision as yet another drop in our Mess standards however reluctantly accepted the inevitable. Much to my surprise I now see that table service has returned to the Regimental Messes because the contractor found they were wasting far too much food. It never ceases to amaze me how quick we are to accommodate the commercial desires of a contractor yet I do not

always see the reciprocal flexibility from contractor towards our needs or wishes.

National Gunner Dinner

I am extremely pleased that it has been agreed to hold the next National Gunner Dinner in Canberra at the Federal Gold Club on Saturday 14th May 2016. It will be held in conjunction with the Firepower: Lessons from the Great War Seminar Series, as well as other activities. More information will be forthcoming in the near future. Please mark your calendar. I am the immediate point of contact for any queries and Colonel Ian Ahearn and Major Gary Down, who is assuming the appointment of Staff Officer Grade Two Head of Regiment from Major John Batayola at the end of the year, will be assisting me in the coordination of the dinner.

... that it has been agreed to hold the next National Gunner Dinner in Canberra at the Federal Gold Club on Saturday 14th May 2016.

Head of Regiment & Colonel Commandant Appointments

I recently had a discussion with a colleague regarding, for a better word, the desired criteria for appointing the Head of Regiment. He raised an interesting proposition which as an alternate to the current arrangement which has Head of Regiment 'dual hatted' resulting in the appointment effectively being an extra regimental appointment. The suggestion was that perhaps the Head of Regiment should be a one or two star officer on retirement from the full-time service and employed as a reserve officer, honorary appointment or some other contractual arrangement. This would mean the officer would be current and across contemporary matters and issues whilst at the same time able to fully dedicate their time to the role. There would be administrative implications associated with this approach but these would not be insurmountable such as remuneration.

This discussion prompted me to think that perhaps it is time for the Royal Regiment to reconsider our honorary Colonel Commandant structure and role including their purpose and utilisation especially given the recent and significant changes to our artillery reserve structure including size and geography distribution of units. I appreciate there was a review from a 'whole of Army' perspective some years ago, prior to our Reserve changes, with the only real impact on the Royal Regiment at that time being the Representative Colonel

Commandant ceased being a stand alone appointment and returned to being a dual role for an extant Colonel Commandant. If nothing else a change to the structure may, I stress may, result in freeing up funds to permit more flexible utilisation of Head of Regiment funds to support other activities especially Regimental Committee sponsored initiatives such as the History Sub Committee.

Mount Schanck Trophy

For those who are not aware the Mount Schanck Trophy competition after some years in hibernation has been 'woken from its slumber' this year. I have just received a comprehensive paper on the subject drafted by Lieutenant Colonel Con Lucey RFD, ED (Retd) the Commanding Officer of 11th Field Regiment RAA from 1972 to 1975. In his paper he provides a detailed background to the history of the trophy and related competition. He also sets about investigating the 'missing' winners currently not listed on the recipients' board located at the School of Artillery adjacent to the actual Mount Schanck Trophy. I will publish updated version of this paper in the next edition of the Liaison Letter.

... the Mount Schanck Trophy competition after some years in hibernation has been 'woken from its slumber' this year.

That said the Deputy Head of Regiment, Lieutenant Colonel Dave Edwards, has asked that I publish the following message in relation to the Mount Schanck Trophy competition:

The 2nd Division RAA sub-units are re-invigorating the Mount Schanck inter-battery competition again and will award the best Light Battery each year in November [the next award being announced in 2015]. The honour board for the Trophy is incomplete and we would welcome any of the Gunner community who had information of the results of the competition and Trophy Winners especially from 1998. Information should be forwarded to WO2 George O'Connell, Joint Fires, HQ 2 Division, Randwick Barracks, NSW, 2031.

Conclusion

Finally once again thank you to everyone who has made the time to contribute to this edition of the Liaison Letter as your support is not only most welcome but truly appreciated. I have said this previously the standard and quality of the submissions continues to grow exponentially. If

you do not have time to draft a paper or article I encourage you to at least consider writing a letter to the editor to express your thoughts and / or opinion. I look forward to receiving everyone's contributions to the next edition.



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Major
Editor

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<http://intranet.defence.gov.au/armyweb/Sites/RRAA>

Seeking Help to Locate Mess Property

Missing Regimental Officers' Mess 'Gypsy Moth' Propeller



When the RAA Regimental Officers Mess was re-established at Bridges Barracks in December 1997 it was decided to display the Gypsy Moth Propeller presented in the 1950's by members of the first (or thereabouts) Air OP Course conducted at the School of Artillery above the bar in the Blue Room.

The propeller remained on display untouched until some years ago when for reasons that remain somewhat of a mystery however it is understood that in a fit of 'excitement and exuberance' the item was taken down and damaged in a prank.

This is where the trail goes cold. Rumour has it that the propeller was sent to the RAAF Museum at Point Cook for repair. Some years ago this clue was followed up by the Mess property member. The curator at the RAAF Museum advised there was no record of the propeller ever being received.

The propeller is very distinctive as located in the centre of the two blades is a silver disc which outlines the background to the presentation and lists the names of those on the course with dates etc.

Anybody who has information in relation to the current location of the propeller regardless of what state of repair are requested to contact the editor Major DT (Terry) Brennan or Major Gary Down at the School of Artillery - email gary.down@defence.gov.au to ensure it is returned to the Regimental Officers Mess and re-displayed.

IMPORTANT NOTICE

Future Liaison Letter Mailing List Requests

The combining of the Liaison Letter and Cannonball journals has meant the rationale behind adding names to the Liaison Letter mailing list had to be reviewed.

To date, the Liaison Letter has been distributed to serving and retired Gunners at no charge. In the case of retired Gunners you have only had to request that your name be added to the list and it was without any requirement to contribute to the 'Gunners' Fund'.

The editor of the Liaison Letter will no longer be able to accept requests from retired Gunners to have their name added to the Liaison Letter mailing list at no cost.

In future for retired Gunners to secure a copy of the combined Liaison Letter and Cannonball journals it is requested that you become a financial member of the Royal Australian Artillery Historical Company. Whilst not mandatory, you are also encouraged to become a life subscriber of the 'Gunners' Fund'.

Whilst the Liaison Letter will continue to be provided to serving Gunners and Gunner units at no cost, individuals are encouraged to either become a Life subscriber to the 'Gunners' Fund' and/or join the Royal Australian Artillery Historical Company. The editor strongly encourages that everyone consider contributing financially to both.

Information on becoming a life subscriber to the 'Gunners' Fund' is in the Associations and Organisations Section of the Liaison Letter. A membership form for the Royal Australian Artillery Historical Company is located in Cannonball.

Letters to the Editor

Australian Artillery Association – Gunner Fund Subscription

On Saturday 18th July 2015 the Australian Artillery Association deposited into the account of the RAA Gunner Fund an amount of \$500.00.

The deposit is a subscription / donation which has been as a direct result of profits raised through the sale of the Australian Artillery Association's Lapel Badge in line with our stated aim of 'The funds raised will enable the Australian Artillery Association to feed back to the Corps and Regiments the majority of funds through a number of initiatives we are currently developing', as previously advised to you in my correspondence of 2nd June 2015.

As you are aware lapel badges were recently presented to each of the new Gunner Officers graduating from Duntroon. We have also had the pleasure of presenting lapel badges to Gunners of the 2nd and 3rd Platoon A Company at Kapooka on the 10th July 2015.

We look forward to continuing our support of the Corps and Regiments in various ways with the profits made from the sale of our Lapel Badge and other initiatives.

Yours sincerely, Ubique

Kim McGrath JP

Editor: On behalf of all members of the Royal Regiment thank you for your extremely generous donation as the gesture is truly appreciated. Thank you also for your Associations ongoing support and promotion of the Royal Regiment including its history and heritage to our members both retired and serving as well as to the wider community.

The Term 'Military'

The term *military* is currently being used incorrectly to describe, or cover, the three services of the Australian armed forces; that is, the Royal Australian Navy (RAN), the Australian Army and the Royal Australian Air Force (RAAF); however, technically speaking, this is wrong. The term *military*, in its correct context, refers to the Army and the Army only, and does not relate to either the Navy or the Air Force.

The word *military* is taken from the Latin '*militaris*', meaning soldier. *Military* is described within the Oxford Dictionary as '*... of, for, soldiers or army*'; the Collins English Dictionary describes the word as '*... characteristic of, or about soldiers*'; even the

disgustingly politically correct Macquarie Dictionary (2005 edition) explains the word as '*... relating to the army ... befitting a soldier ... having the characteristics of a soldier ...*'. The Macquarie also describes *military police* as '*... soldiers who perform police duties within the army*' (there are no naval or air force personnel in the Royal Australian Corps of *Military Police*).

Prior to the early 1970s the title of the Australian Army Reserve was the Citizens' **Military Forces** (CMF); there were no Navy or Air Force units or personnel in the CMF. The Citizens' *Military Forces* was Army only. Prior to the introduction, in the mid-1980s, of the tri-service *Defence Law Manual* (DLM) each service had its own law manual. The Army's publication was the *Army Law Manual* (ALM) and it contained a section called the AMR&O (*Australian Military Regulations & Orders*); these regulations and orders related to the Army only, not the RAN or the RAAF.

Military officer training establishments around the world train cadets to be army officers, not officers of other services; examples of such institutions are the Royal *Military College* (Duntroon), the Royal *Military Academy* (Sandhurst) and the *United States Military Academy* (West Point). The only non-military cadets at the *Royal Military College* are RAAF cadets who are training as ground defence personnel (ie. future RAAF officers who will be employed in an infantry role defending air fields). The Australian institution that collectively trains cadets of the three services is called the Australian *Defence Force Academy*.

Up until 1991 the Australian Army's General Service badges (commonly referred to as the 'rising sun badge') carried within them the word *military* (the scroll within the badge worn over the period 1904 – 1949 read: Australian Commonwealth Military Forces and the 1949 – 1991 badges scroll read: Australian Military Forces). It should be noted that the Army is known in the plural term 'forces' because, whilst the Navy and the Air Force are homogeneous bodies, the Army is an elemental organization made up of a number of corps, services and departments (hence there is no such force as the Royal Australian Army).

Finally, the *Commonwealth of Australia Constitution Act*, in a number of cases, refers to Australia's '*... naval and military forces ...*'

Yes, it may be said that English is a living language, and yes, we currently live in an age of ridiculous political correctness, however, the use of the term *military* to describe the Defence Force is wrong! The *military* is the Army.

Yours sincerely

Christopher Jobson

Editor. Thank you for your ongoing contribution to the professional debate on customs and traditions across the Royal Regiment and more widely within Army. Your contributions are always insightful and provide food for thought and stimulating and colourful discussion. I am sure this topic will be no different.

Message from the Australian Defence Force Senior Leadership on Mental Health Issues

A recent television documentary that focused on ADF veterans and their stories of dealing with PTSD and other mental health issues arising from their deployment has created significant public debate.

This is potentially one of the most emotive topics relating to Service in the ADF that is discussed in the public domain. Over the past six years, the ADF has put an enormous amount of effort into improving our understanding of, and screening for mental health conditions, particularly PTSD, as well as in preventing and treating such conditions.

As a result of this effort, we now have some excellent programs in place to assist our people and defence works extensively and closely with the department of veterans' affairs to provide a smoother transition for those ADF members leaving military service and earlier identification of mental health issues in that transition period. We consult with the prime ministerial advisory council on veterans' mental health to ensure we are doing all we can in this important area.

We do not get it right all the time and there are a number of former ADF personnel who feel that their treatment was not up to the standard they would expect.

I accept the criticism of those who feel their treatment was not as good as it could have been and I welcome the debate on this important issue that has flowed from the program. Honest, open feedback is important to understanding the needs of those among us who are dealing with mental health issues and improving the services we provide to those who seek help.

One of the things that we as a senior leadership team of the ADF have been attempting to do is to more fully understand all the elements and factors that impact on the mental health of our people. This is time consuming but important work because we need to understand the factors that impact our people before they join, while they serve and, in conjunction with the department of veterans' Affairs (DVA), once they leave the ADF.

This requires a more sophisticated and mature debate on mental health issues than we have previously seen. Part of this is in presenting data that challenges conventional wisdom, but it is data that is crucial to understanding the whole picture. Without it, we cannot make the right decisions at the right time to support our people to the best extent we can.

We must be able to put these issues on the table and discuss them in a rational manner. The recent vilification of the commander of joint health command, Rear Admiral Robyn Walker in social media has caused us considerable concern. The comments are not only unfair and unwarranted, they are

unacceptable. Rear Admiral Walker is a strong and vocal advocate for improving and delivering effective mental health services within the ADF and she works tirelessly to remove the stigma many feel still exists around the issue of mental health within the defence community and amongst our service men and women more generally. I have full confidence in Rear Admiral Walker and she continues to have my support and that of the ADF command team.

It is important that this debate focuses on the issues and not on individuals doing their best for the wellbeing of the serving and former members of the ADF.

We recognise that some individuals may not present with or become aware of mental health concerns while they are still serving. Some individuals may not present with or develop symptoms of mental health conditions such as PTSD until after they have discharged from the ADF. For this reason we continue to work closely with DVA to improve and strengthen the transition arrangements and support veterans and their families to seek help as early as they can before or after they have left the ADF.

Mental health conditions such as PTSD can be successfully treated. Early identification, diagnosis and intervention by trained mental health professionals provide the best outcome for those dealing with mental illness. We recognise the unique demands of military service as an occupation and we owe it to our serving personnel to equip them, and their families, to better deal with the stresses of the job and to support them throughout their career, including on their return from deployment.

Defence has, does and will continue to provide the very best in care, treatment and ongoing support for its people dealing with mental illness. Since 2009, defence has spent over \$140 million on delivering mental health programs and support for its members. We have also added 91 additional positions to our mental health workforce over the past six years. Regardless of whether it is a physical or a mental health illness or injury, deployment related or not, it makes no difference to the individuals' access to quality health care in the ADF.

We continue to learn from our experience in supporting wounded, injured and ill personnel and from informed discussion about this important issue and we remain committed to providing the best possible care to everyone, whatever the injury or ailment.

Authorised by CDF, VCDF, CN, CA and CAF

Editor: I have included this message on mental health as a follow on from the comments and observations I made in my *Editor's Comment* Section of the RAA Liaison Letter 2015 – Autumn Edition on the topic.

DATE CLAIMER

National Gunner Dinner
Saturday 14 May 2016



All Gunners (serving or retired) and Spouses/Partners Welcome

LOCATION: *Canberra*

VENUE: *Federal Golf Club*

COST: *Approximately \$100 per head*

ASSOCIATED EVENTS OVER THE WEEKEND

HISTORY SEMINAR SERIES (DETAILS OVERLEAF)

TIMING AND VENUE TO BE ADVISED

OTHER WEEKEND EVENTS TO BE CONFIRMED

For Further Information.

PRIMARY CONTACT

MAJOR DT (TERRY) BRENNAN

EMAIL: CRBRENNAN@BTRC.QLD.GOV.AU

MOBILE: 0419 179 974

ALTERNATE CONTACT

COLONEL IAN AHEARN (RETIRED)

EMAIL: IFERAH@VIRGINBROADBAND.COM.AU

MOBILE: 0417 691 741

DATE CLAIMER

History Seminar Series

(FIREPOWER: LESSONS FROM THE GREAT WAR)

Timing and venue to be advised

Western Front: from Egypt to Armentières

THE '100 SERIES' BATTERIES - INCEPTION OF THE HOWITZER BATTERIES INTO THE AFA

DESCRIBES THE IMPORTANT CHANGES TO THE AIF'S FIELD ARTILLERY BRIGADES DURING THE MAJOR REORGANISATION OF THE AFA IN 1916. IN PARTICULAR, THE INTRODUCTION OF THE 4.5" HOWITZER BATTERIES PROVIDED A DEGREE OF ORGANIC FIRE SUPPORT UNPRECEDENTED IN I AND II ANZAC CORPS. RECOUNTS THE STORY OF THE DEVELOPMENT OF THE AUSTRALIAN SIEGE BATTERIES AND THEIR INCORPORATION INTO THE AFA.

MAJOR GENERAL TALBOT HOBBS - COMMAND IN MANOEUVRE AND FIREPOWER

STUDIES THE WARTIME CAREER OF MAJOR GENERAL TALBOT HOBBS, ONE OF FEW GENERALS WHO WAS BOTH AN INFANTRY DIVISION COMMANDER AND A COMMANDER, ROYAL ARTILLERY (CRA), FROM ANZAC TO THE WESTERN FRONT.

INNOVATION OR FOLLY? BATTLE PLANNING FOR THE SOMME OFFENSIVE

ANALYSES THE UNPRECEDENTED LEVELS OF PLANNING AND LOGISTIC EXECUTION IN THE LEAD-UP TO THE SOMME OFFENSIVE. REVIEWS THE DECISIONS THAT IMPACTED ON THE EMPLOYMENT OF TWICE AS MANY ARTILLERY GUNS EVER MASSES TO THAT DATE, AND THEIR RELATIVE INEFFECTIVENESS.

NEW TECHNOLOGY - MUNITIONS, FUSES AND PRODUCTION

ANALYSES THE RAPID TECHNOLOGICAL ADVANCES OCCURING IN THE FIELD OF AMMUNITION DESIGN AND PRODUCTION, AND THE IMPACT THESE EVOLUTIONS HAD ON EMPLOYMENT AND TACTICS ON BOTH SIDES.

For Further Information:

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Regimental

Representative Colonel Commandant

Brigadier AG (Gerry) Warner AM, LVO (Retd)



Dear Fellow Gunners

Sadly, since the last edition of the Liaison Letter I seem to have written a large number of condolence letters to family members of Gunners who have died. In preparing these letters I reflected on the service of these individuals and the

different contributions they made, not only to the RAA but to the Army more generally and the nation. In each case great satisfaction and pride in serving in the RAA was evident.

In each case great satisfaction and pride in serving in the RAA was evident.

This theme was repeated in a recent letter from my Malaysian counterpart, Brigadier Jeneral Dato' Razali bin Mohd Regen, Chairman of the Malaysian Royal Artillery Regiment. He reminded me that 'ONCE A GUNNER ALWAYS A GUNNER'.

I had written to the Chairman with a message of congratulations on his Regiment's 58th anniversary. I included mention of my recent attendance at a commemorative service and reunion of our 110th Light Anti Aircraft Battery which served in Malaysia 1966-1969, and on completion of its deployment presented its 40 mm Bofors guns to the Malaysian Royal Artillery Regiment. The Brigadier Jeneral's warm response contained a generous recognition of the service of 110th Light Anti Aircraft Battery almost half a century ago, and conveyed best

wishes to the Australian Gunner family. The following is a short extract from his letter:

'As for the veterans of the 110th Light Anti Aircraft Battery who had served in Butterworth, we are deeply honoured and privileged for their truly commendable contributions and humble deeds serving in this country. Their relentless effort, perseverance and accomplishments shall always be part of this illustrious and distinguished history of the nation.

Again, on behalf of the members of the Malaysian Royal Artillery Regiment, please accept our gratitude and best wishes to the members of the Royal Regiment of Australian Artillery, families and friends in celebrating its 144th anniversary on 1st September 2015. May both our Artillery Regiments accord greater success and recognition in the near future.'

... I echo the sentiments of all Gunners in congratulating our Head of Regiment, Brigadier Peter Gates, on his appointment as a Member (AM) of the Order of Australia ...

I know that I echo the sentiments of all Gunners in congratulating our Head of Regiment, Brigadier Peter Gates, on his appointment as a Member (AM) of the Order of Australia, for exceptional performance of duty as Director General Defence Education and Training, Director General Defence Learning Branch, and Commandant Australian Command and Staff College. Good Shooting, Peter.

As the end of the year and the inevitable associated postings for serving Gunners approach, the Colonels Commandant and I take this opportunity to thank those completing their various appointments, and wish them and their families well in the future.

Ubique

Head of Regiment

Brigadier Peter Gates AM, CSM



As this goes to print I expect the Regiment within the Army remains at a high tempo of activity. It seems no matter whether under demands of operations or how clever our equipment is, there is always work to be done. It has also been fantastic to

see the various associations, great and small, embrace the centenary of the Gallipoli campaign.

The Regiment as a whole continues to undergo modernisation of people, equipment and organisations at a rapid pace. Personnel continue to serve across all operations including the support to training of the Iraqi Defence Forces and continued training and staff roles in Afghanistan.

1st Regiment, RAA has just completed its certification as part of 7th Brigade readiness through Exercise Hamel 2015. The unit has settled into its new facilities with still some of the old buildings in place for a few more years. The RAA Band still finds its home with the 1st Regiment and remains an important and busy member of the Regiment. 1st Regiment has also built a number of guns for racing and we hope we see a return of this great spectacle of skill and fitness across a number of the units in the near future.

Personnel continue to serve across all operations including the support to training of the Iraqi Defence Forces and continued training and staff roles in Afghanistan.

4th Regiment is preparing to stand down into a 'Reset' year after two years 'on-line' as part of the Ready Combat Brigade. The Regiment has made great strides on behalf of many of the units in adapting to the digital command and control provided by AFATDS (Advanced Field Artillery Tactical Data System). It has also kept a watchful eye of 108th Battery, now formally part of 2nd Battalion, the Royal Australian Regiment, as it embarks on amphibious capability trials. The Battery consists of the Battery Headquarters and Joint Fire Support Teams that must spend much of

its time working with aircraft, helicopters, mortars and naval surface fire support.

The gun regiments will all start building the third battery gun lines from 2016 and a growth in gun detachments from 8-10 personnel.

8th/12th Regiment is in the 'Readying' period and has been on exercise for much of this year rebuilding technical and tactical skills. 102nd (Coral) Battery has now re-joined the rest of the Regiment in Darwin having moved from its adventure in Adelaide. The unit has been busy in the north and had elements deployed on Exercise Talisman Sabre 2015 in Bradshaw Field Training Area in July. They worked with their US Marine Corps counterparts to great effect with live fire and airmobile operations a feature.

The gun regiments will all start building the third battery gun lines from 2016 and a growth in gun detachments from 8-10 personnel.



Lieutenant Scott Leeder, from the mid year graduating class from the Royal Military College Duntroon, being presented the Artillery Prize by Head of Regiment, Brigadier Peter Gates AM, CSM

16th Air Land Regiment has had a busy year preparing for possible deployments and continue to come to grips with operating the Giraffe Agile Multi-Beam (G-AMB) radar and the Lightweight Counter Mortar Radar (LCMR) as well as maintain the RBS 70 system skills. A significant body of work has been done within reviving the Ground Liaison and similar Air-Land integration skills (some previously done by 1st Ground Liaison Group). A composite battery deployed on Exercise Hamel and much of 1st Air Ground Battery found itself in Hawaii with the Air Operations Cell.

The light battery's of the 2nd Division, continue to impress by bringing some ordered and calm Artillery attitude to the chaos of the 81mm mortar lines.

Good news on the horizon with the replacement air defence system commencing its development with what may be a significant step forward into serious gun and missile systems for Army.

20th Surveillance and Target Acquisition Regiment has come a long way in bringing the unmanned aerial systems capability to fruition. The unit turns ten in October this year, but has had a least one battery deployed for eight years deploying radars or flying various unmanned aerial systems on operations in Iraq and Afghanistan. The Shadow 200 UAV has proven itself as a very capable platform and will soon complete tests on its laser range finding and target designation capabilities to bring it to full capability.

The light battery's of the 2nd Division, continue to impress by bringing some ordered and calm Artillery attitude to the chaos of the 81mm mortar lines. These battery have been part of the new Reserves structure and are preparing to be certified within Battle Group Jacka, the Reserve Ready Battle Group to support operations. The Gunners of the 2nd Division have impressed many and are a match for any of their companions in the regular infantry battalions. We hope for the first time in a couple of decades to award the Mount Schanck trophy in mid-November of this year.

The School celebrated 130 years of service to Army and Australia. In the last few years it has taken a leading role in most of the introduction into service of the capabilities in the RAA, has pioneered new technologies and training in targeting, joint fire support and digital fire support. 53 Battery is one of the busiest around and has taken on responsibility

as official test battery for gunnery in the RAA. The School is a recognised world leader in Joint Fire support instruction and in dynamic targeting. While many still lament previous locations for the School, it remains a powerhouse of change, ideas and training for Army.

With all this change and talk of new things, it is appropriate to welcome those new members of the Regiment. Whether you are one of the many new Gunners in the Regiments or in the Light Batteries, you are now a member of one of the great parts of Army, enjoy your service. I also welcome the newly commissioned young officers from the Royal Military College, including our Australian Intelligence Corps officer gaining essential regimental time in the RAA. I had great pleasure in presenting the Royal Australian Artillery prize to Lieutenant Scott Leeder, (20 STA Regt). The following other graduates have joined the Royal Regiment: Lieutenants Bradley Jasch (1 Regt); Jordan Lynch (4 Regt); Joshua Childs (8/12 Regt); Joshua Chambers and Fernando Tula Recinos (16 ALR); and Craig Stephenson (20 STA Regt). Lieutenant Joseph Rears an Australian Intelligence Corps graduate will be undertaking non corps training with artillery. On behalf of the Gunners I wish you the all the best at the outset of what I trust will be a rewarding career.

Despite what others may hear, the RAA finds itself in a position of great fortune and advantage over many of its combat peers.

I will also take this chance to pass on my thanks to the Head of Regiment staff who support the work that goes through my office over the past couple of years. Major Terry Brennan remains a stalwart of the Regimental Office and has been responsible for the ever expanding Liaison Letter, the Regimental Committee and Conferences and retains a great memory of the recent history of the Regiment. Major John Batayola, also Second-In-Command of the School, has been remarkable in his dedication and diligence to his duties for the Regiment. Whether it has been in ensuring information good and bad is passed about the Gunner community, supporting the Colonels Commandant, or ensuring our funds and property are being cared for, John has done a wonderful job. John moves on from his posting to Canberra in the New Year. The Regimental Master Gunner, Warrant Officer Class One Matthew Sullivan, has been an outstanding representative of the Regiment, not only in his role in trade and training, but in the provision of advice,

maintenance of Regimental History and standards as well as representing the Regiment at a number of important events. He moves on to be the Regimental Sergeant Major of the 1st Brigade in 2016 and I wish him best of luck. Thanks also to Major Greg Metcalf, who shortly after retiring from regular service as part of the Head of Regiment staff, returned in a reserve capacity to finish off updating the Regimental Standing Orders and stood up the new Gunner Fund.

Despite what others may hear, the RAA finds itself in a position of great fortune and advantage over many of its combat peers. The RAA is regarded highly amongst Army and increasingly our Joint and Coalition colleagues. In a very short time we have achieved a reputation as a world leader in digitally aided fire support, air-land integration and UAS operations. More modernisation is just on the horizon and we will once again lean forward into the next set of challenges. Some things don't change however; mortars, rounds and missiles are still heavy, observers carry a lot, you get little sleep while you man a radar, pilot a UAV seeking the enemy or listen on the radio for that call for fire in the middle of the night. Despite all of this, Gunners remain some of the hardest, loyal and humorous soldiers on the battlefield.

Ubique



Deputy Head of Regiment

Lieutenant Colonel Dave Edwards



This will be the last edition of the Liaison Letter in 2015 and will also be my last as the Deputy Head of Regiment. I must admit to casting my eye across the previous editions in the past two or three years and have been very happy to see a growing range of

historical pieces, press releases, information on activities and events, articles that challenge the status quo or introduce new ideas and ways of thinking. I genuinely thank all of those both still serving and retired for taking the time to sit down and write for the Liaison Letter. I hope that the enthusiasm remains in the future and we continue to grow what is a wonderful means of speaking to the Gunner community everywhere.

It would be remiss of me not to thank the rest of the Head of Regiments' staff. Major Terry Brennan continues to provide a dedicated service to the Regiment with this publication in particular owing a great deal to Terry's efforts. He is a wonderful source of knowledge on the recent history and the events that led us to decisions in the past with the Regimental Committee. I am very glad to see Terry remain on for another posting.

I genuinely thank all of those both still serving and retired for taking the time to sit down and write for the Liaison Letter. I hope that the enthusiasm remains in the future and we continue to grow what is a wonderful means of speaking to the Gunner community everywhere.

I would also highlight the magnificent work done by Major John Batayola. John manages much of the day-to-day running of the Head of Regiment office, including budgets, working to the Colonel Commandants and the constant flow of correspondence that comes with the role. Not busy

enough, John also serves as the Second in Command. He has also had the often very regretful duty of passing on to the Gunner community the sad news of members passing away. I think John has done a wonderful job in this regard for keeping people informed and has always done so with respect and compassion. John posts out at the end of 2015 and his role will be filled by Major Gary Down in the New Year.

The Regimental Master Gunner, Warrant Officer Class One Matthew Sullivan has been at the helm for most of the past two years after Warrant Officer Class One Bob Thompson decided to retire after a long and successful career. Warrant Officer Class One Sullivan has done a great role not only as part of the Artillery Trade and Training Team, but with those representative requirements, sound advice to myself and others and diligent work with such things as the Regimental property and history collections. I am very happy to see Warrant Officer Class One David 'Paddy' McGarry, currently RSM 8th/12th Regiment, RAA assume the role of Regimental Master Gunner in January 2016.

I will also pass on my regards and farewell a few of the Commanding Officers moving on to their next roles. Lieutenant Colonel Bede Galvin has completed a mammoth amount of work in the three and a half years in command of 20th Surveillance and Target Acquisition Regiment. He has brought the Shadow 200 back from operations and continued to build the Regiment and UAV capability within Army. Lieutenant Colonel Damian Hill will stand down from command at 4th Regiment, RAA after three years at the helm where he navigated his people through a number of major readiness exercises and activities and has been a great advocate for our digital capabilities.

The School recently celebrated 130 years of service; I believe one of the oldest military training institutions in Australia. We paused for an evening to enjoy ourselves and have a party, then straight back to the business of training. The last few months of the year the School sees about 60% of our training requirements for the year being executed which makes for a busy time for Instructors, 53rd Battery and all the staff. It is, however, a great time to be about the home of the Gunner and it is always interesting to catch up with others and see what the units are doing (and not doing).

In mid November, the School will host the RAA Command Post Exercise. Now in its third year the Command Post Exercise is a means for the Regiment and those associated with Joint Fires Support, Air

Land Integration and Surveillance and Target Acquisition to come together, to confirm or adjust our procedures, look at the means to work better together and also hear from the wider Defence community and even industry of what the future may hold and how we will have to adapt. I hope this year builds on the success of the last two and that it can endure as a permanent part of the Regimental calendar.

I still believe the skill we practice the least is simply 'thinking'. Thinking as a disciplined, creative and deliberate activity will profoundly add to whatever you are planning, devising or trying to be innovative. It does, however, require the rarest of resources, time.

We have been in contact with the Royal Artillery over the past twelve months or so as they prepare some international activities for the 300th year anniversary of the Royal Artillery in 2016. There is a baton to be carried about the globe next year with a message from the Captain-General. This is due to pass through Australia and New Zealand in late April and early May 2016. The Royal Artillery is also sending a Cricket Team to tour Victoria, Canberra and New South Wales in February. We hope to lock horns with them at Puckapunyal and hopefully get an RAA team together from across the Regiment to play in Canberra or Sydney.

I will forgo any of my usual reminders on the value of continual training, reinforcing those technical skills and theory as the basis for your professional mastery. I still believe the skill we practice the least is simply 'thinking'. Thinking as a disciplined, creative and deliberate activity will profoundly add to whatever you are planning, devising or trying to be innovative. It does, however, require the rarest of resources, time.

The next time the Liaison Letter is sent to you I hope you will take the time to read from my successor as the Deputy Head of Regiment, Lieutenant Colonel Scott Fletcher. He assumes this role along with the Commanding Officer / Chief Instructor (and now 'Firemaster') of the School of Artillery. I wish him and all of you the best of luck in the New Year and I thank you for your ongoing support of the Regiment.



Major John Batayola SO2 Head of Regiment & Second in Command School of Artillery receiving a cheque for the Gunners' Fund from Sergeant Andrew Shilton Treasurer of the Regimental Shop.



Major Peter Dover receiving a Regimental Cypher to mark 40 years service from the DHOR Lieutenant Colonel David Edwards.

Regimental Master Gunner

*Warrant Officer Class One Matthew Sullivan CSM
Regimental Master Gunner*



Ladies and Gentlemen

For a number of years now the catch cry has been 'that matter will need to be addressed at ECREM!' Well, finally the Employment Category Review and Endorsement Meeting (ECEM) is upon us. By publication of this edition of the Liaison Letter, the RAA should have been briefed on the ECREM outcomes.

However in order to proceed to ECREM all Artillery Employment Categories were presented at the Army Employment Category Management Stakeholder Steering Group (ASSG) Meeting on 24th March 2015. The ASSG is a new process, designed to review, test and support concepts and outline courses of action and provide clear guidance to stakeholders on actions required to support the conduct of the employment category review. The RAA was the first of Army's employment categories (trades) to trial the new process. The ASSG ran relatively smoothly with only minor areas of refinement required before we were approved to commence development of the ECREM submissions.

Over the past six months the Artillery Trade and Training Cell, in consultation with the RAA has prepared the supporting capability propositions submissions, re-written employment specifications for each trade, developed implementation and communication plans to support the proposed changes and finally prepared the ECREM presentations. On 30th September 2015, all trades will be presented to ECREM for review and endorsement. The under pinning message is that each trade is not broken however each requires further refinement in order to evolve from the 2009 outcomes (the last time the RAA was reviewed). Key outcomes being sought are:

Generic Offensive Support Areas

- Withdrawal of the Protected Mobility Vehicle, All Corps Commander proficiency requirements from the trade.

- Create a skill grade for Assistant Manager Offensive Support (Sergeants qualified Subject 4 Warrant Officer, RAA Offensive Support).

Artillery Gunner

- Pay grade movement for Gunner Grade One and Two from pay grade 2 to 3.

Artillery Command Systems Operator

- Removal of the Advanced Combat Communications Course from the Sergeants qualification requirement. It will be proposed that this training is just in time training for selected appointments only.

Artillery Observer

- Create an ARA only employment category for Artillery Observers.
- Remove legacy independent surveillance equipment courses as this training is now embedded in the observer career courses.

Manager Offensive Support

- Create as an ARA trade only for Warrant Officer Class Two.

Artillery Light Gunner

- Retain Artillery Light Gunner as the RAA Army Reserve employment category; however expand the category from a single skill set to three skill set employment category; mortar operator, Artillery Forward Observer (AFO) and Manager Artillery Light (WO2 rank).
- Establish a single point of entry for common training for all RAA Reserve soldiers.
- Retitle and transfer Army Reserve Artillery Observers to AFO.
- Remove the Advanced Combat Communications Course and Joint Fires Team (Basic Observer) Course as qualifying modules for the Sergeant's course and redesign a contemporary two module course for sergeant.
- Both skill sets will converge at Warrant Officer Class Two under the title of Manager Artillery Light.

Operator Ground Based Air Defence

- Retitle Operator Ground Based Air Defence to Operator Air Land.
- Establish a single entry point for the employment category that will contain two skill sets, ground based air defence and sense, warn and locate.

- Merge the skills sets at sergeant through common courses at Sergeant and Warrant Officer Class Two.

Operator Unmanned Aerial Systems

- Establishing a single Operator Unmanned Aerial Systems employment category from Gunner to Warrant Officer Class One, transferring all affected personnel then terminating the Manager Surveillance and Target Acquisition employment category.
- Pay grade movement for Operator Unmanned Aerial Systems Grade One.

Once the ECREM outcomes are published, it is likely that some RAA employment categories will require presentation at the ADF Defence Force Remuneration Tribunal (DFRT). Whilst ECREM will inform this requirement, should there be a requirement to take employment categories to DFRT this is not likely to occur at the earliest before the later half of 2016 and more likely in 2017.

General Employment Category Management Updates

Training Management Board – The following courses have been redesigned and submitted to the Forces Command Training Management Board on 3 September 2015:

- Regimental Officer Gunner Course (STA);
- Subject 4 Warrant Officer RAA (STA);
- Subject 4 Sergeant RAA (GNY);
- Subject 4 Sergeant RAA (ACS);
- Subject 4 Sergeant RAA (JF);
- Advanced Operator, Unmanned Aerial Systems;
- All Arms Air Defence Instructors Course; and
- Digital Terminal Control System Operators Course.

All course redesign has been approved by Forces Command and in some cases; courses have already been delivered in their new format with the remainder adopting the new format shortly.

Protected Mobility Vehicle, All Corps Commander Course Update. Most would now be aware that after significant work across multiple levels of command, Forces Command has directed that the PMV, All Corps Commanders course can be run for RAA career progression requirements only. RAA units should and are planning the conduct of this course to ensure personnel are not further disadvantaged. Current indications are that the first of these courses is likely to run toward the end of 2015 with others scheduled in early 2016.

Artillery Trade and Training Cell 2016 – The Artillery Trade and Training cell for 2016 are:

- SO2 Arty – MAJ M Gowling
- SO3 Arty – CAPT E Stewart
- RMG – WO1 D McGarry
- TM OS – WO2 C Leechman
- TD OS – WO2 J Porter
- TM GBAD – WO2 M Mlikota
- TD GBAD – SGT G Bradford
- TM STA – WO2 R Hay
- TD STA – WO2 J Clearihan

RAA Regimental Affairs

RAA Gunner Fund. Awareness of the importance of the RAA Gunner Fund to support the wider RAA Gunner community through the purchase of individual awards, activities to benefit RAA members not funded by public money and assisting in the preservation of RAA Regimental history and heritage is growing. In particular, I would like to personally acknowledge and thank the Commanding Officer and All Ranks of 4th Regiment RAA, for the Regiment's support and contributions to grow the Fund over the past 18 months.

RAA Regimental Property. One could argue that the physical accounting for RAA Regimental Property is relatively easy and generally it is, however the processes for accounting, recording and valuing the property are a little more challenging. I would like to acknowledge the expert assistance provided by Brigadier Perry (Retd) and Mr Ian Armstrong this year in assisting to evolve the regimental property accounting, recording and valuing processes. 2015 has been a busy year of updating regimental property photographs, capturing more detail about each item of property and evolving our accounting and recording processes. Additionally, I would also like to acknowledge and thank Sergeant Andrew Whitelaw (20 STA Regiment) for his assistance and detailed work with re-photographing and updating 20 STA Regiment's property folios.

Finally, to the newly appointed Commanding Officers, Regimental Sergeant Majors, Master Gunners, Battery Commanders and Battery Sergeant Majors, congratulations to all on your appointments and best of luck in guiding your units and sub-units through the complexities and challenges that lay ahead in 2016.

Ubique

2nd Division Light Artillery

Joint Fires Cell

*Lieutenant Colonel Warwick Young
SO1 Joint Fires, 2nd Division*

First and foremost, I am happy to pass on the significant news that the Light Artillery capability within 2nd Division has now reached Full Operating Capability (FOC). This significant milestone was reached when Battle Group (BG) Waratah's Light Battery (Lt Bty) made up of members from 7 and 23 Lt Btys took part in the 7 Brigade Combine Arms Training Activity (CATA) on Exercise Diamond Strike in the SWBTA. By the end of the 16 day exercise, the Lt Bty, commanded by Major Phil Wong, was producing effective fire from its Mortar Line, a Gun Battery from 1st Regiment (thanks CO 1) and live CAS missions delivering Mk 82 and Mk 84 ordinance via FA-18 aircraft, all coordinated or controlled by the Lt Bty Joint Fire Teams (JFTs) and in support of live fire Combat Team (CT) attacks. BG Waratah's Lt Bty is now in the ready phase of the Fore Generation Cycle.

... the Light Artillery capability within 2nd Division has now reached Full Operating Capability.

The BG Cannan Lt Bty made up of personnel from 3 and 5/11 Lt Btys, took part on the 3 Brigade's CATA conducted at HRTA. The Lt Bty deployed to the field with the JFECC deployed as part of the BG Cannan Headquarters which took part in the FTX phase. In the planning phase, the BC, Major Ben Dullroy, executed his role within the JFECC by providing support to the BG Commander for the exercise, CO 31/42 RQR. For this newly formed JFECC it was a great training opportunity (at the deep end) to take part in planning and target development.

During warmer than normal June the 3 Brigade CATA was a test for the Lt Bty but one which it completed satisfactorily. This saw the BG advancing alongside 3 RAR and 2 Cavalry Regiment and facing off against a Kamarian enemy. The JFT led by Captain Kinnane from 3 Lt Bty and Bombardier Matt Gray from 5/11 Lt Bty deployed with CT Alpha and were soon in the thick of the action as the deception plan shaped the enemy into thinking BG

Cannan was the Brigade's main effort. The Mortar Line was detached from the FTX and conducted a Battery FTX and LFX, conducting deployment training and mission drills under the experienced eye and supervision of Major Stu Seabrook, SO2 Joint Fires HQ 2 Div. The Lt Bty's Mortar Line fired in support of Platoon and CT Live Fire attacks and defensive practices by day and night. With a JFT coordinating these practices the Battery engaged with several ammunition natures including High Explosive, Red Phosphorus, Smoke, and Infra Red Illumination. In addition the JFT coordinated CAS serials controlled by a USMC JTAC.

On the home front 5/11 Lt Bty continues to grow with the addition of 4 new officers to the Bty. Lieutenant's Shane de Vries, Russell Fox, David Box and Lachlan Moore, who are welcome additions to the RAA family.

In the West, 3 Lt Bty continues to build on the strong foundation it laid during Exercise Hamel 14. The Battery attended brigade activities deploying in support of the BG and integrating the JFECC in to the BG Headquarters. The relationship between the BG Headquarters and the JFECC is gaining momentum with the Battery being commended on its provision and guidance on the implementation and use of Joint Fires and Effects.

3 Lt Bty live fired twice in the May to August period, the second LFX being used as an evaluation by the HQ 2 Div JFires Cell for the Mount Schanck trophy in which the Battery acquitted itself well. The LFX was also the culminating point of the non continuous Basic Mortar Course, which qualified another six members.

Finally, it would be remiss of me to not mention that in December 2015 Major Stu Seabrook will retire from the ARA after several extensions to his compulsory retirement age.

On the 5 July 3 Lt Bty celebrated its birthday with a mixed dining in night at Hobbs Artillery Park. All accounts state it was certainly was a memorable evening with close to 100 current and past serving Gunners and their significant others in attendance. The BC Major Rob Coales stated on the night "that whilst we shouldn't dwell in the past, it is important to remember and acknowledge it". This is a good message for all Gunners in the Division. The night certainly showed that the Gunner family is alive and strong in the West.

A point to note is that the feedback from 3, 11 and 13 Brigades has been extremely positive about both 3 and 5/11 Lt Btys and the Light Artillery capability.

2/10 and 6/13 Lt Btys have moved into the 'Readying' phase of the FGC and have conducted Exercise Courtney Post the first run out for BG Jacka. The Lt Bty deployed and integrated well into the BG during the FTX and the LFX and is looking forward to deploying on Exercise Hamel 16.

The HQ 2 Div Joint Fires cell has been deployed on all the major exercises in support of the Lt Btys provided mentors and OTs. In addition in conjunction with the School of Artillery (thanks CO/CI) it is conducting Joint Fire Team course at the School which will enable the ARes JFTs to complete their trade training.

Finally, it would be remiss of me to not mention that in December 2015 Major Stu Seabrook will retire from the ARA after several extensions to his compulsory retirement age. This in itself is indicative of his value and the significant input he has had into the design, planning and establishment of the Lt Bty capability. Stu has simply been an extraordinary individual with a dedication that is rare by any standards. He is a credit to the RAA and will be sorely missed.



7th Lt Bty coming into action During Exercise Polygon Wood

\$13m set aside for war history

A search is on for a historian to produce the official account of Australia's wars in Iraq and Afghanistan, which are among the most under-reported campaigns involving the Australian Defence Force.

The Abbott government has set aside nearly \$13 million for the task, which is expected to include the roles of the Australian Federal Police, Department of Foreign Affairs and Trade, AusAID and other relevant agencies, according to Veterans' Affairs Minister Michael Ronaldson.

The project is expected to take six years. The historian and a group of authors and researchers will operate through the Australian War Memorial and will also detail Australia's intervention in East Timor.

The Memorial is calling for expressions of interest from qualified historians.

Memorial director Brendan Nelson said the appointment would be a vital one. "The story of Australian military involvement in these operations is yet to be told and recorded authoritatively. There is a strong and reasonable public expectation that this process should now begin," he said. The Official History team would provide "a detailed, author active account of Australia's extensive and complex military and peacekeeping operations in Iraq (2003 - 11) and Afghanistan (2001 - 14), and peacekeeping operations in East Timor (1999 - 2012).

Senator Ronaldson said it was crucial the nation recognised and authoritatively recorded the ADF's role in these operations.

"The project will cover the aftermath of these operations on the countries involved and those who served," he said.

"The official histories will provide all Australians - including scholars, Australian Defence Force personnel and policy makers - with a comprehensive account based on author active government and defence sources."

The War Memorial will conduct the independent expression-of-interest process and make a recommendation to government on the historian to be appointed.

It is expected that research will begin this year.

BRENDAN NICHOLSON
THE AUSTRALIAN, TUESDAY, JULY 7, 2015
the Australian.com.au

Queens Birthday Honours

MEMBER (AM) IN THE MILITARY DIVISION OF THE ORDER OF AUSTRALIA

Brigadier Peter Campbell GATES CSM

FOR EXCEPTIONAL PERFORMANCE OF DUTY AS DIRECTOR GENERAL DEFENCE EDUCATION AND TRAINING, DIRECTOR GENERAL DEFENCE LEARNING BRANCH, AND COMMANDANT AUSTRALIAN COMMAND AND STAFF COLLEGE.

Brigadier Gates has pioneered the implementation of a number of complex enterprise-wide training and human resource reforms, and changes to organisational structures in the Australian Defence College and Defence People Group. He has substantially reformed the delivery of joint military and Australian Public Service education and training, resulting in significant savings and capability efficiencies. His exemplary leadership, strategic acumen, remarkable vision and meritorious devotion to duty have earned him wide respect and created an enduring culture of continuous improvement and excellence.

COMMENDATION FOR DISTINGUISHED SERVICE

Colonel Stuart Nicholas KENNY CSC

FOR DISTINGUISHED PERFORMANCE OF DUTY IN WARLIKE OPERATIONS AS THE DIVISIONAL CHIEF OF FUTURE OPERATIONS AND DIVISIONAL DIRECTOR OF OPERATIONS HEADQUARTERS 4TH INFANTRY DIVISION, REGIONAL COMMAND SOUTH, DURING OPERATION SLIPPER, FROM 16 JULY 2013 TO 9 JULY 2014.

Colonel Kenny displayed distinguished performance of duty in warlike operations by planning and conducting complex operations against a hardened insurgency. Operations included combined planning with Special Forces that made a significant difference in delivering battlefield success. During his tenure, Coalition forces experienced the first significant reduction in International Security Assistance Force troop levels, two complex presidential elections and associated run off, the closure and retrograde of 26 International Security Assistance Force bases and supported the mentoring of Afghan National Army partners.

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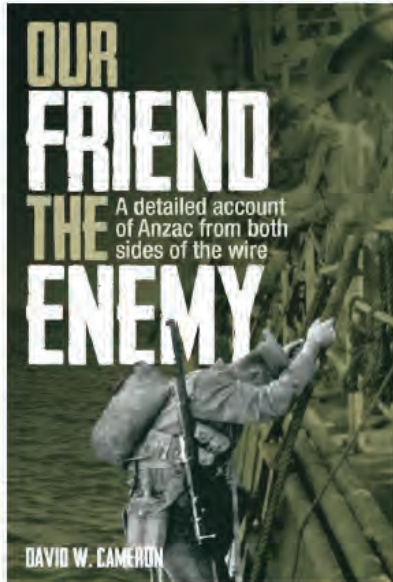
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Warrant Officer Class One Jarvis is an outstanding soldier who has displayed exceptional professionalism, leadership and organisational skills in making significant contributions to the Corps of Staff Cadets. He has greatly improved the quality of training to over 670 of Army's officer corps and contributed to Army's cultural change.



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Described in first-hand accounts Cameron provides a wide-ranging insight into events and the decisions made on either side of the wire.

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David W. Cameron

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Our Friend the Enemy

A detailed account of Anzac from both sides of the wire

David W. Cameron

"Prudence here is entirely out of place. There will be and can be no reconnaissance, no half measures, no tentatives. Several cautious proposals have been set before me but this is neither the time nor the place for paddling about the shore putting one foot onto the beaches with the idea of drawing it back again if it happens to alight upon a landmine. No; we've got to take a good run at the Peninsula and jump plumb on — both feet together. At a given moment we must plunge and stake everything on the one hazard."

— General Sir Ian Hamilton

Canberra author David W. Cameron's new book *Our Friend the Enemy* (Big Sky Publishing, RRP \$34.99) is the first comprehensive history of the Anzac campaign since Charles Bean's *Official History*. Viewed from both sides and described in first-hand accounts it provides a wide-ranging insight into events and the decisions made on either side of the wire.

The Gallipoli campaign involved a mix of nationalities that went beyond the Anzacs and Turks to include German officers, and British and Indian troops. These are the people whose words tell this story — the courage and heroism, the monotony and often humour that accompanied the horrors of the bitter fight to claim the peninsula.

Our Friend the Enemy provides a wide-ranging insight into events at Gallipoli, Cameron's strong narrative and detailed history of the men at Anzac pays homage to the humour and sacrifice of these men and provides an unblemished perspective from both sides on a logistically and politically fraught event.

About the Author: David W. Cameron's fascination with Gallipoli began in 2003 and has only magnified over time. He completed his PhD in 1995 and was subsequently awarded an Australian Research Council (ARC) Post Doctoral Fellowship at the Australian National University, followed by an ARC QEII Fellowship at the University of Sydney. He has published a number of books on Australian military history and science and over sixty research papers in internationally peer reviewed journals.

David's passion for recording the overarching history of Gallipoli has resulted in six books on the subject. He is also internationally known as an expert on primate and human evolution and has a degree in both archaeology and palaeoanthropology.

Available for extract

David is available for interviews, for more information, cover images

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Professional Papers

Indirect Fires and the Reinforced Combat Brigade

Major Tom Drew
SO2 Joint Fires, DFD-A, AHQ

Bottom Line Up Front

UNDER PLAN BEERSHEBA AND IN THE CONTEXT OF THE FUTURE OPERATING ENVIRONMENT, A REINFORCED COMBAT BRIGADE IS INSUFFICIENTLY EQUIPPED TO GENERATE FIRES AND EFFECTS FROM INDIRECT FIRE SYSTEMS TO SUPPORT THE COMBAT BRIGADE COMMANDER. HOW THEN DOES ARMY SUFFICIENTLY EQUIP A REINFORCED COMBAT BRIGADE TO INCREASE ITS COMBAT POWER TO WIN THE LAND BATTLE?

Background

This paper aims to highlight the indirect fire¹ capability gaps within the Reinforced Combat Brigade (RCB) and proposes options to further enhance its utility. At the heart of this paper is the RCB inability to generate sufficient weight of fires in sufficient discrete firing units to support the RCB Commander within an increasingly complex and disaggregated battlefield. This paper does not seek to challenge the concepts of a 'joint' or 'total'² force architecture; merely emphasise the shift towards non-contiguous, distributed operating environments³ and the subsequent impact this has on the RCB ability to generate indirect fires and effects.

Strategic Environment

It is widely accepted that the Army will always aim to fight within a larger combined or joint force architecture, relying heavily on theatre enablers to win the joint land battle. *Adaptive Campaigning* –

Future Land Operating Concept states that the Land Force must be designed for operations in complex environments and optimised for sustained close combat. To achieve this, Army needs a balanced force, enabled with sufficient indirect fires to deliver precise, persistent and timely fires. Recent operational experience demonstrates that land forces must be capable of operating with organic means, over greater distances and within complex terrain. Not only does this pose tactical challenges to the Land Force, it also places additional strain on joint force enablers, particularly operational fires.

Army needs a balanced force, enabled with sufficient indirect fires to deliver precise, persistent and timely fires.

To operate effectively within the future operating environment, Army must structure, man and equip to adapt rapidly to meet future challenges. Under Plan BEERSHEBA⁴ Army commenced changing its force structure to enable the sustained deployment of a Combat Brigade capable of performing a wide range of effective land force tasks. In addition, Army continues to invest in key modernisation initiatives to remain proficient in the conduct of sustained close combat. Projects such as The Soldier Combat System (SCS), the development of Army's IFV capability and enhancements to the MBT and assault breaching capability⁵ all aim to equip soldiers with the latest generation of combat equipment to survive and thrive within the future

operating environment.⁶ Digital communications and enhancements in battle management systems⁷ all serve to enable individual soldiers to sense, acquire and prosecute targets with greater speed and ease. Although in keeping with the CA intent that soldiers are the core of all land based capabilities⁸ and “every soldier an expert in close combat”, Army must ensure that the RCB Commander is also equipped with sufficient combat support to enable manoeuvre at the formation level and shape the battlespace.

Key Issues

Support Requirements. In its current configuration, the RCB is significantly under strength, in terms of weight of fires and the number / type of firing units. At its nucleus, the RCB must be capable of generating eight Combat Teams (CT), task organised within three manoeuvre Battle Groups (BG). These BGs, traditionally task organised into two infantry heavy BGs and one armour heavy BG are the means for the RCB Commander to manoeuvre for effect within his battlespace. In addition to the three manoeuvre BG, further force elements within the RCB require offensive fires. The Cavalry Squadron within the ACR, which is responsible for formation level reconnaissance, is a prime example of an independent force element which requires offensive fires to enable its operations. The force protection BG, albeit conducting RASO and VAP, may also be reliant on indirect fires from the Artillery Regiment to support its operations. As it stands there is a limitation on the provision of offensive support within the RCB as a result of the number, size and inherent capabilities of its organic indirect fire systems. To support the simultaneous manoeuvre for all three BGs and formation reconnaissance within a distributed operation, all the manoeuvre combined arms units require responsive and persistent fires to suppress, neutralise or destroy threats as they arise.

Quantity. Once broken down into functional groups, it is evident that under Plan BEERSHEBA there are more functional manoeuvre groupings than dedicated fires elements to support them. In addition, there are also no assets to provide dedicated shaping / deep fires to the RCB Commander and organic indirect fires to support formation reconnaissance. Within the RCB there are two organic indirect fire platforms;⁹ the 81mm F2 Mortar and the M777A2 Lightweight Towed Howitzer (LTH).¹⁰ Both these systems provide persistent and responsive fires to their supported arm, however, are limited in quantity when required to support the RCB. Under the current force structure, there are 12 x M777A2 LTH¹¹ and 12 x 81mm Mortars to provide, at a minimum, indirect fires to three manoeuvre BGs and formation level reconnaissance. To put this into perspective, table 1 shows the comparison between the RCB and three US Military Brigade structures. All three base Brigade structure models demonstrate the critical importance placed by US Land Force Commanders on the provision of sufficient fires to each subordinate manoeuvre units.

Shaping fires aim to isolate the close fight, shape the future fight and protect manoeuvre forces ...

Shaping Fires. As it stands, the RCB Commander has very few organic assets for shaping fires in support of Brigade operations. In the RCB, indirect fires are primarily provided by the Artillery Regiment and can be grouped into three broad categories; close support fires, counter battery fires (CBF) and shaping fires. Shaping fires aim to isolate the close fight, shape the future fight and protect manoeuvre forces, and are traditionally conducted by Heavy Artillery Regiments.¹² Given there are no Heavy Artillery Regiments within the ADF, shaping fires are usually conducted by the Artillery Regiment within the RCB, or by employing Attack Aviation

RCB/US Comparison

	60 mm	81 mm	120 mm	105 mm	155 mm	MLRS	Supported Manoeuvre Forces
AS Combat Bde		12 (2 Pls)			12 (3 Btys)		2 x Inf Hvy BG, 1 x Armour Hvy BG, 1 x Cav Sqn (FMN recon)
US Armd BCT	12	12	14		16 (2 Btys)		2 x Combined Arms Bn (2 x Tank Coy, 2 x Inf Coy), 1 x Recon Sqn (3 x Tp)
US Inf BCT	14	8 (2 Pls)	12	16 (2 Btys)			2 x Combined Arms Bn (3 x Inf Coy), 1 x Recon Sqn (3 x Tp)
USMC MEB	27	24			24 (4 Btys)		3 x Inf Bn, 1 x Light Recon Sqn, 1 x Tank Sqn

assets.¹³ Given the paucity of Artillery and Attack Aviation assets, this is a sub-optimal solution. Shaping fires are time intensive, leaves close support artillery exposed to enemy CBF, strip manoeuvre forces of integral fires and communicates the RCB concept of operations before the RCB Commander is ready. The RCB Commander cannot afford to dedicate limited indirect fire platforms for shaping fires at critical times during the battle. Therefore, the RCB Commander needs a dedicated indirect capability to generate shaping fires at the time and place of his own choosing with the additional capacity to provide long range fires in support of the higher Combined / Joint Force. Army has identified this need and will likely acquire a long range fires system providing responsive, persistent, reliable and discriminate fires capable of precision and wide-area effects.¹⁴ Organic to the RCB, a long range fires capability would greatly increase its reach and potency, enabling the RCB Commander to shape the battlespace as required.

Armoured Cavalry Regiment (ACR). The ACR does not possess an organic indirect fire capability able to provide responsive, persistent and discriminate fires. The two main functional tasks of the ACR are to form the basis of a manoeuvre BG, and conduct formation level reconnaissance. In order to achieve these tasks, the ACR needs to be sufficiently enabled with dedicated and persistent indirect fires. Although it is reasonable to expect a manoeuvre BG to operate within range of its direct support artillery, the nature of tasks an ACR is required to achieve requires it to be supported by an indirect capability with commensurate tactical mobility and protection to ensure responsive, persistent and reliable fires are available. Under the current force structure, towed Artillery within the Artillery Regiment is restricted in its tactical mobility and protection which limits how it is employed on the battlefield. In order to increase survivability, Artillery must remain under the detection threshold until required and will employ 'fire and manoeuvre' tactics to reduce its exposure in a static gun position. With towed Artillery, the time taken to move into and out of action is comparatively slower than Self-propelled Artillery and therefore its time out of action is longer than that of self-propelled systems. The time out of action, coupled with the limited tactical mobility means that towed Artillery is not well suited to providing OS to a mounted force.

Formation Reconnaissance. When conducting formation level reconnaissance, elements of the ACR, usually the Cavalry Squadron, will traditionally operate well forward of close support artillery. In addition to formation level reconnaissance, a Cavalry Squadron may be tasked with security operations, such as convoy escort or flank / rear guards, and economy of force operations, such as wide area security patrolling in low threat areas. Without an organic indirect capability able to provide responsive and persistent fires, the formation reconnaissance capability's offensive capability, self protection and ability to break contact is severely limited. Having a dedicated indirect fire platform with commensurate protection and mobility will mitigate these vulnerabilities and provide the RCB Commander another tool to shape the battlefield for future operations. The ACR therefore requires a dedicated indirect fire platform to support its reconnaissance function. A bespoke mobile protected fire system would meet this capability gap as it offers proportionate protection and mobility as well as persistent and responsive fires.

... the change in Battery size under LAND 17 has diluted the weight of fire a gun battery is able to generate.

Battery Size. In order to generate the weight of fire and the persistence required to support manoeuvre forces, the size of gun batteries within Artillery Regiments must return to six guns. Prior to the IIS of the M777A2, the RAA was equipped with the 155mm M198 and the 105mm L119 Hamel Gun. Both platforms were task organised into batteries of six, however, when replaced under LAND 17, were reduced in size to four guns. Meant to be a 'like for like' replacement, the change in Battery size under LAND 17 has diluted the weight of fire a gun battery is able to generate.¹⁵ The AFATDS and M777A2 capability allows for dispersed gun line operations. A gun battery comprised of six guns could establish three pairs of guns reporting to one command node over an area of up to 1.5 kilometres. This significantly increases the survivability of the RCB organic fire power and enables a greater weight of fire on target. In a battlespace increasingly disaggregated, where overlapping fires are difficult to achieve, gun batteries need to return to six guns to enable them to generate a credible weight of fire and increase their survivability.

Risks If Not Addressed

Operational. The risk of inaction is that the RCB will not be able to generate sufficient weight of fires, number of fire units, and enabling platforms to adequately support formation manoeuvre. The RCB is heavily reliant on indirect fires to support its operations and shape its battlespace. Failing to provide adequate indirect fires may result in an overreliance of scarce and vulnerable joint force enablers and significantly increase the risk to the Land Force.

RCB Enhancement

RCB Structure. In order for the RCB to manoeuvre in a non-contiguous, distributed environment, it needs to be sufficiently enabled with the right type and quantity of OS capabilities with commensurate protection and mobility to best parallel the manoeuvre BG. Figure 1 highlights the desired indirect fire requirement for each of manoeuvre elements within the RCB and the balance to support its operations.

Self Propelled Howitzer (SPH). Army has an enduring need for a Self-propelled Artillery system with commensurate protection and mobility with the force it is tasked to support. This need was first highlighted in the Defence White Paper in 2000 which articulated the requirement to enhance / replace the then in-service 105mm L119 and 155mm M198 capabilities.¹⁶ This need was partially met with the procurement of the M777A2 LTH; however, this does not meet the need of a gun system with a level of protection and mobility commensurate with its supported BG.¹⁷ With the

force structure changes under Plan BEERSHEBA and the improvements in protection and mobility under LAND 400, there is an immediate need for a SPH capability. With the formation of the ACR, traditional towed Artillery does not match the level of tactical mobility, protection and range required to support the ACR. This mismatch in capability not only restricts the tactical options for the ACR, but also increases the vulnerability of towed Artillery. The introduction of SPH would greatly increase the combat weight and lethality of the RCB.

... traditional towed Artillery does not match the level of tactical mobility, protection and range required to support the ACR. This mismatch in capability not only restricts the tactical options ...

ACR Organic Fires. Army has an enduring need for an organic mobile protected fires system with proportionate protection and mobility to the manoeuvre force. Currently the ACR does not have an organic indirect fire capability able to provide guaranteed, persistent and responsive fires – specifically for its Cavalry Squadron when tasked as formation reconnaissance, security or economy of force roles. Unlike an infantry heavy BG with its organic Mortar Platoon, the ACR is totally reliant on the supported Artillery Regiment for offensive fires. This reliance not only places additional strain on an already finite resource, it also limits the effects an ACR is able to generate. An organic mobile protected fires system within the ACR would have the tactical mobility and protection required to

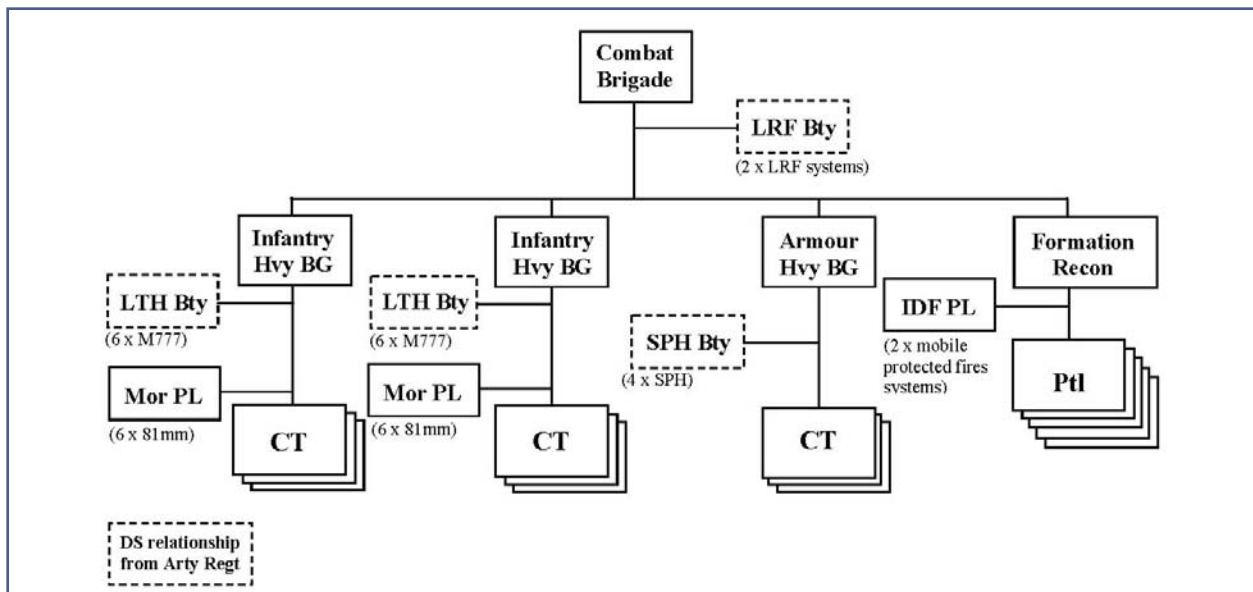


Figure 1: RCD Structure

provide persistent and reliable indirect fires using precision fires and wide-area effects. This capability would greatly increase the survivability and lethality of the ACR.

Recommendations

Subject to further analysis, in particularly in the context of FIC, the following recommendations are made:

- a. Army examine the need for a self-propelled capability to support the armour heavy BG and explore future force options to determine the optimal model for a self-propelled gun battery within the Artillery Regiment of the RCB.
- b. Army examine the need for a bespoke organic mobile protected fire system to support the ACR.
- c. Army explore future force options to determine the optimal model for an artillery gun battery within the RCB.
- d. Army explore future force options for the employment of a long range fires system within the RCB.

Conclusion

The Army needs the RCB enabled with sufficient fires to generate superior firepower against an adversary and shape the battlespace in order to provide a credible land force, capable of deterring and defeating attacks against Australia. Plan BEERSHEBA has laid the foundations, however, Army now needs to address the shortfalls highlighted within this Issues Paper if it is to fight and win in a future operating environment that is non-contiguous, highly lethal and disaggregated.

- and an understanding of the potential second and third order consequences that may arise
4. *CA Directive 29/11 – Changes to Army's Force Structure under Plan BEERSHEBA*, 31 Dec 11
 5. LAND 125 Ph4 will deliver SCS, LAND 907 Ph2 will upgrade Army's MBT, LAND 400 Ph3 will deliver an IFV capability to Army and LAND 8160 will provide Army's armoured assault bridging and breaching capability
 6. ACND 1 – Soldier Combat System (DRAFT)
 7. JP 2072 Ph 1 – 4 will deliver Army an integrated Battlespace Communications System – Land (BCS(L)) to enhance its communication systems
 8. *AOF 2030 Handbook Vol 1, ch 5, 'key ideas', p. 91*
 9. SOCOMD units are currently fielding a 60mm Mortar capability, however, Army is not. An ACND has been raised by AHQ with the intent of IIS a 60mm Mortar Capability for the SIB
 10. An Artillery Gun Regiment is task organised into three Gun Batteries, each equipped with four M777A2, a Combat Service Support Battery (CSS) and an Operations Support Battery (OSB)
 11. LAND 17 1C.1 is delivering an additional 19 x M777A2 which will bring the total number of guns within an Artillery Regiment to 12 x M777A2
 12. Heavy Artillery Regiments are categorised between 155mm and 200mm calibre weapon systems. Rocket Artillery is also considered Heavy Artillery due to its long range and large payload
 13. Joint assets such as air and maritime strike contribute to shaping fires however due to limiting factors (payload, tactical range, threat) are unable to provide persistent and reliable fires in support of a RCB
 14. ACND 50 Long Range Fires System (Endorsed - 23 Apr 15 by HMSP-A)
 15. Both the M777A2 and the M198 have a sustained rate of fire of 2 rounds a minute and fire the same family of 155mm ammunition
 16. *Defence White Paper 2000*, para 8.28, p. 83
 17. *AOF 2030 Handbook Vol 1, part 2, ch 9, para 9.56.e.1*

Endnotes

1. Indirect fire systems consist of field artillery (towed, self-propelled and rocket systems) and mortars – *LWP-CA (OS) 5-3-2 Target Engagement, Coordination and Prediction*, Vol 1, p. xxvii
2. *AOF 2030 Handbook Vol 1, ch 3, para 3.7, p. 65*
3. *AC FLOC 2009 – Distributed Manoeuvre* seeks to close with and destroy the enemy without presenting a targetable mass. Importantly, it seeks to harness the synergies that come from combining precision joint fires and manoeuvre elements into small, agile combined arms teams that 'burrow' into complex terrain to detect, identify and kill or capture the enemy with precision, discrimination

International Humanitarian Law Autonomous Weapon Systems

Lieutenant Christopher Pitman
4th Regiment RAA

Introduction

As technology continues to develop, the analysis of a weapon's adherence to International Humanitarian Law (IHL) is among one of the principal considerations when determining whether the weapon is firstly lawful and how and if that weapon can be lawfully employed in armed conflict. This determination proves difficult as new weapons continue to surface, almost in an attempt to bypass existing laws, rules and treaties to seize the initiative prior to armed conflict being declared. It can be said that fully autonomous weapon systems (AWS) would not only be unable to meet legal standards but would also undermine ethical and moral factors of warfare. That said, the distinction between IHL prohibitions on weapons and those on the unlawful use of otherwise lawful weapons could just as easily result in the same negative outcome.

The argument we face is whether a weapon is in fact unlawful by design and function or by how the human interface employs the weapon. Thus, several moral and ethical concerns are to be considered when employing an AWS within an armed conflict environment. These concerns will be presented throughout this paper along with a discussion on both current and existing laws surrounding the use of AWS. The advantages provided by the utilisation of AWS will also be discussed, along with a discussion on the need for reform.

Autonomous Weapon Systems

With three subsets of AWS existing it is difficult to align a common set of rules that govern the employment of each weapon type. The three types of weapon systems include; autonomous, supervised-autonomous and semi-autonomous. While there is no agreed definition of an AWS, the US Department of Defence has defined an AWS as:

A weapon system that, once activated, can select and engage targets without further intervention by a human operator. This includes human-supervised autonomous weapon systems that are designed to allow human operators to override operation of the weapon system, but can select and engage targets without further human input after activation.¹

The argument we face is whether a weapon is in fact unlawful by design and function or by how the human interface employs the weapon.

A semi-autonomous weapon also requires human interaction throughout the life of the weapon once it is activated. A 155mm SMART round is classified as an AWS where as an AGM-114 Hellfire Missile is classified as semi-autonomous due to human interaction required from launch to impact. These weapons possess the ability to distinguish objects in areas defined as being relatively clear and foreseeable, where a fully AWS is unable to identify, distinguish and engage a target with no human interaction.

The development of these systems must comply with the rules of IHL and this will provide significant challenges to ensure no violations occur in the future.² It is clear that "the true value of these systems is not to provide a direct human replacement, but rather to extend and complement human capability by providing potentially unlimited persistent capabilities, reducing human exposure to life threatening tasks, and, with proper design, reducing the high cognitive load currently placed on operators/supervisors."³

International Humanitarian Law

While IHL governs the employment and development of AWS, the challenge for future development is the complex judgments that would

need to be performed by a machine with no human interface. The Human Rights Watch has outlined that, “an initial evaluation of fully autonomous weapons shows such robots would appear to be incapable of abiding by key principles of IHL. They would be unable to follow the rules of distinction, proportionality, and military necessity and might contravene the Martens Clause.”⁴ Article 36 of Additional Protocol I to the Geneva Convention details the requirement to carry out legal reviews for the development of new weapons.⁵ Further governing the development of future weapons or ‘robots’.

The rule of proportionality, being the most complex to achieve, would not be met, as case-by-case qualitative judgement is required.

The rule of proportionality, being the most complex to achieve, would not be met, as case-by-case qualitative judgement is required.

With current technology the International Committee of the Red Cross (ICRC) has stated that fully AWS “would not be capable of independently making the nuanced distinctions required by the principle of distinction, including distinguishing persons that are hors de combat from combatants, and civilians from those who are directly participating in hostilities.”⁶ The rule of proportionality, being the most complex to achieve, would not be met, as case-by-case qualitative judgement is required. Thus, this category of AWS would be deemed unlawful prior to any evaluation of military advantage or moral and ethical concerns unless human interaction was available from the point of weapon activation.

... there should be a human role in the decision to apply lethal force in armed conflict and placing this decision in the hands of a machine is immoral.

The populated environments that are now being observed in armed conflict and the utilisation of civilians being directly involved in conflict will pose many concerning and difficult challenges for the future of these weapon systems. These aspects will ultimately affect the ability of a machine to perform both qualitative and quantitative judgments involving distinction.⁷ There would be great difficulty in programming an AWS to make this

assessment and judgment and it is not in the foreseeable future that technological advancements would allow such a function.

Moral And Ethical Concerns

Moral and ethical rights are exhibited throughout IHL and violations of these laws can also be observed as violating certain ethical rights. There is a widely held view that there should be a human role in the decision to apply lethal force in armed conflict and placing this decision in the hands of a machine is immoral. When the responsibility to make a decision and initiate lethal force is given to a machine, especially in the case of an AWS, it has been said that armed conflict is dehumanised even further and the overall importance of individual lives is lessened.⁸

Ethical and moral rights associated with AWS are also provided by the Martens Clause, which is observed in Article 1(2) of Additional Protocol I to the Geneva Conventions. This particular clause states:

*In cases not covered by this Protocol or by other international agreements, civilians and combatants remain under the protection and authority of the principles of international law derived from established custom, from the principles of humanity and from the dictates of public conscience.*⁹

If a weapon defies the principles of humanity and public conscience, this particular clause would be violated. The International Court of Justice has made a statement finding that the Martens Clause is an important principle that needs to be considered and addressed in the future of IHL and armed conflict.¹⁰ This principle has been said to be an effective means to offer protection from advancement in weaponry that may prove to challenge the principles of IHL.¹¹

Conclusion

This paper has demonstrated that AWS are not unlawful when an element of human interface is utilised. The future development and use of AWS poses many legal, ethical and moral challenges and the question still remains as to whether advances in technology will meet the fundamental principles of IHL.

Although there are many advantages to the use of AWS in armed conflict, there are serious challenges with the development of fully AWS in order to meet the legal and moral requirements established through IHL. It is difficult to make a clear

conclusion on whether the development, production and use of autonomous weapon systems should be universally prohibited, as the current technology is unable to demonstrate whether the systems will be able to meet the rules of distinction, proportionality and precautions, along with the principles of the Martens Clause.

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Friday 12th February 2016

Affirmative Action in Defence: Greater female representation at what cost?

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Background

Search 'role and status of females in Defence' in any news website and the results will predictably reveal considerable public consternation typically centred on three main areas. Firstly, is the underrepresentation of females in Defence; notably because females do not currently volunteer at the same rate men do. Secondly, is the lack of females in the foremost command and planning positions within Army; females have been precluded from a combat background which is traditionally considered requisite experience for these roles. And finally, a number of abhorrent acts have been committed against females by male Defence members, both within and external to Defence. The concern held in these three areas resulted in the Government appointing Elizabeth Broderick¹, in her capacity as Sexual Discrimination Commissioner, to conduct a review into the treatment of women in the Australian Defence Force. Broderick would subsequently publish four reviews on the topic.²

The findings of the Commissioner's reviews established the extent that claims of inappropriate conduct permeate Defence.³ The reviews offered a number of investigational findings which broadly indicated Defence was not an environment that would allow all women to flourish in the various manifestations of the Defence workplace. Broderick asserted that "increasing the representation of women" across Defence and "improving their [females] pathway into leadership goes to the very heart of the sustainability and operational effectiveness of the ADF".⁴ This statement by Broderick captures the essence of the primary recommendations of her reviews. Whilst the veracity with which a career legal professional can assess ADF operational capability is worth some contemplation, the focus

of this discussion will instead be on her recommendation to implement affirmative action. This recommendation was fully endorsed by the Government and subsequently implemented by Defence shortly thereafter.⁵

... indicated Defence was not an environment that would allow all women to flourish in the various manifestations of the Defence workplace.

With that decree Defence stood alongside a number of civilian organisations that have adopted affirmative action. Due consideration must now be afforded to the implications of this decision. This consideration will ultimately provide insight to the merits of affirmative action as well as the likely outcomes for Defence, based on the experiences of contemporary organisations which have implemented affirmative action or similar policies.

This discussion is based on objective empirical data and does not seek to promote antediluvian cognition. Rather, it is intended to promote a fact driven policy review which will facilitate objective and well informed discussion on the benefits and ramifications of affirmative action. Specifically, the focus will be on the implementation of affirmative action within a framework of Defence capability.

A rose by any other name

Affirmative action is predicated on the premise that the provision of preferential selection or opportunities to a group who has a perceived disadvantage, and is therefore a minority, will ultimately rectify that inequality. Affirmative action has been utilised for these reasons extensively in the private sector, public sector and educational

institutions to correct for race and gender underrepresentation.⁶

Affirmative action in Defence will directly focus on providing additional opportunities for females to be selected for leadership positions. Historically, Defence has employed an egalitarian meritocracy when selecting individuals for key leadership positions; those with the best demonstrable history of performance and potential would be afforded the greatest leadership responsibilities. It therefore seems a reasonable deduction that the selection processes for competitive leadership positions, such as for Sub Unit Command, Australian Command and Staff Course and Command, will be affected by the implementation of affirmative action. To increase the quantity of females in these positions a new selection criterion will be introduced – gender.

To increase the quantity of females in these positions a new selection criterion will be introduced – gender.

The facts of affirmative action

Economic, psychological and sociological research has consistently demonstrated support for the axiomatic contention that affirmative action is an effective mechanism for increasing representation of minority groups.⁷ The litany of analysis on affirmative action has historically focused on this single aspect, the efficacy at which affirmative action increases minority representation. This focus has been at the expense of wider review, to the extent that affirmative action research has systematically failed to analyse the second order consequences following implementation of the policy.⁸ It has been posited that the magnitude of these second order effects are of such significance that they outweigh the value of a targeted recruitment policy.⁹

In spite of an adverse approach to research on the ramification of affirmative action, a number of investigations have been recently published. The most significant conclusions which have been consistently drawn can be categorised as creating disharmony, generating an ability mismatch and contributing to a degradation of performance.

Creating disharmony. A common held belief relating to affirmative action speculates that implementation of such policies would generate animosity from non-beneficiaries directed towards

beneficiaries. The underpinning assertion being that perceived favouritism would engender enmity from those who do not benefit towards those who do stemming from a perceived unfairness. The logic behind this hypothesis is simple and has been consistently supported in research.¹⁰

... focus has been at the expense of wider review, to the extent that affirmative action research has systematically failed to analyse the second order consequences ...

Furthermore, it has also been hypothesised that the use of a minority characteristic as selection criterion would subsequently undermine the perceived competence of all with that characteristic, regardless of true performance. The underlying belief of this hypothesis offering that non-beneficiaries would be likely to believe that a person with a minority quality and high profile position was afforded that position as a result of their minority quality and not because they were the best candidate. This contention has been consistently supported in studies over three decades, on numerous minority variables, in multiple countries.¹¹

Animosity in the Defence workplace is cancerous to harmonious teams. The cohesive small groups which collectively form Army are based on unified teams. The cited research suggests this team cohesion is likely to be challenged by affirmative action. Furthermore, it has consistently been shown that affirmative action ultimately detracts from the peer evaluated competence of beneficiaries, regardless of true performance. It is probable that introduction of affirmative action will challenge team cohesion and trust; characteristics that Army has built a century of success upon.

Research conclusions suggest affirmative action will have a net negative consequence for the individuals with a targeted characteristic.

Mismatching. Researchers of affirmative action have also observed a phenomenon which is now termed 'mismatching'. Mismatching occurs when beneficiaries of affirmative action are afforded the opportunity to undertake tasks beyond their demonstrable capacity and as a result are disadvantaged by being asked to complete tasks they simply do not have the capacity to complete.

An example of this occurred when UCLA adopted raced-based affirmative action for their prestigious

law program. Despite the increase in enrolments of African-American students, significantly less students from this demographic graduated overall. The reason being that by virtue of a minority characteristic a number of students were granted access to studies beyond their capability; a large number of African-American students failed to complete the program they undertook. These are students who would likely have successfully completed less arduous study options commensurate with their ability which they would have been offered under normal circumstances. The subsequent removal of affirmative action in the American tertiary system identified a drop in enrolments at the most selective programs for African-Americans but no change in overall graduation rate; a finding consistent with the UCLA anecdote and the premise of mismatching.¹²

Research offers that affirmative action will overall have a negative effect on the targeted population or group.

Reduction in executive performance. A number of studies have conducted longitudinal analysis on the performance of private sector organisations, as a factor of board induced profitability, following mandated introduction of affirmative action to the executive board.¹³ This provided an excellent opportunity for juxtaposition of organisations with extraneous variables removed leaving the implementation of affirmative action as the only variable manipulated. This research has consistently demonstrated a loss in profit and increase in labour costs following gender based affirmative action.¹⁴ One author stated that affirmative action directly resulted in “*less experienced boards, increases in leverage and acquisitions, and deterioration in operating performance, consistent with less capable boards*”¹⁵ and a clear decline in decision making.¹⁶ Additionally, further evidence has suggested there is no tangible benefit, in productivity or capability, linked to the introduction of affirmative action.¹⁷

The results of affirmative action in these studies have clear implications for those who would implement affirmative action in Defence. Biased selection resulted in an organisation with a less capable board which directly contributed to a reduction in success through lack of relevant experience and poor decision making. The ramifications of a senior leader in Army, appointed by virtue of gender, making poor decisions is far more gravely profound than the purely fiscal concerns of private sector organisations.

Research indicates that affirmative action will be detrimental to the health of the organisation as a whole when the executive function is supplemented by affirmative action.

Capability cost for Defence

Elizabeth Broderick posited that increasing representation of females in Defence will generate a cultural change. Affirmative action has a proven history of increasing representation of minority populations by targeted recruitment or promotion based on minority attributes. If Broderick's assertion, that the aetiology of cultural issues in ADF comes from a lack of female representation, is correct then in isolation it surely follows that affirmative action will have an indelible positive influence on Defence.

However, contemporary research has emphatically demonstrated that affirmative action is unlikely to be successful. Indeed, this research suggests that affirmative action will be detrimental to the targeted individual, the minority group and the organisation as a whole. If affirmative action is bad for the individual, bad for the group and bad for the organisation – who is the true beneficiary of implementing affirmative action?

... contemporary research has emphatically demonstrated that affirmative action is unlikely to be successful.

It is not to suggest that Defence will unquestionably feel the wrath of any of these cited challenges; the denouement remains unwritten. However, an inalienable commitment to preservation of capability must be the cornerstone of any Defence policy mandate and certainly manifest above quixotic ideals. It will be a tragic course of events for Defence to place the desire to meet a public perception above the need to provide soldiers with commanders who have the most relevant experience and attributes, and are therefore the most likely to make the best decisions.

With specific regard to a point by Broderick, I leave it to the reader to determine which poses a greater threat to the operational viability of Army – a lack of female representation, particularly command positions, or commanders who were not the best candidate and lack relevant experience and are therefore more likely to make poor decisions, as shown by peer reviewed evidence.

Ultimately, this policy must be measured against capability. The metric of success of any policy in Army is its ability to improve warfighting capability. If a policy does not improve capability it is a distraction. If a policy is introduced and is likely to reduce warfighting capability, Defence has needlessly given an advantage to any future enemy. True capability is inextricably linked with identifying and rewarding the most prodigious talent regardless of gender, race, or any other quality. 'The best person for the job' should be the mantra overriding any selection decision. Capability is not ameliorated through rewarding those who are mediocre but possess a given desirable trait. To accept mediocrity is to accept coming second; not a desirable endstate in the profession of arms.

It will be a tragic course of events for Defence to place the desire to meet a public perception above the need to provide soldiers with commanders who have the most relevant experience and attributes, and are therefore the most likely to make the best decisions.

It cannot be understated that Defence approaches a critical junction where it must choose either capability or political adherence. The path chosen will have lasting ramifications which will affect the standards and expectations of future generations of officers, soldiers, sailors and airmen who serve in it. The overarching consideration for this decision must be a commitment to providing servicemen and servicewomen with the most capable and competent leaders and decision makers today, and into the future; leaders and decision makers with a proven history of excellence. Anything less is not good enough for the soldiers, sailors and airmen of the Australian Defence Force.

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ADF in Contemporary Politics

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We see, therefore, that war is not merely a political act, but also a real political instrument, a continuation of political commerce, a carrying out of the same by other means.

Carl von Clausewitz, On War¹

Introduction

Wars are typically political acts, and therefore armies are organisations that carry out that political will, however the Australian Defence Force (ADF) has traditionally maintained a separation from direct political activity. Whilst politics has clearly always been present in its history and its current tasks, the ADF has rarely participated in political statements other than those tasks it was ordered to undertake. It seems apparent however, that the ADF is becoming increasingly involved in political announcements and activities.

It seems apparent however, that the ADF is becoming increasingly involved in political announcements and activities.

This essay will identify some contemporary aspects of politics in which the ADF has been involved, and assess whether this should or should not be continued and why. It will not argue the merits of those activities, in fact for the purposes of this essay the merits are irrelevant. Rather, it will focus on the ADF's involvement in politics and the value of that participation.

Recent Political Activities

In 2015, the ADF marched in the Sydney Mardi Gras Parade, and although Defence members had marched in this parade since 2008, this was the first time that they marched in uniform². This was a significant milestone, as Defence members are actually banned from participating in political events of any nature whilst in uniform³. Despite this, several high ranking members of the ADF participated in the event, including the Regimental Sergeant Major of the Australian Army⁴. This was an act that offered an undeniable political statement

on behalf of the ADF to the Australian and international public and media.

This public event may have been considered beneficial for possibly immediate public relations gains, following recent scandals and inquiries into the ADF in the past few years, starting with the 'Skype Scandal' at the Australian Defence Force Academy. These events, and the relatively public investigations that followed, led to the cultural reform and the 'Pathway to Change' that the ADF is currently undergoing. Evidence that the ADF is progressing in this reform, should therefore be a relatively public response also, but that evidence should not contradict the ADF's existing policies. Equality, respect and a 'fair go for all' should be held in high regard in Australian society and in the ADF, however the ADF should not be used as a political tool, nor should it insert itself into forums that may lead to perceived bias. This is identified in a Defence instruction relating to its personnel; "So that the political neutrality of Defence is not in doubt, it is necessary to impose some restrictions on Defence personnel concerning their participation in political activities⁵".

... the ADF should not be used as a political tool, nor should it insert itself into forums that may lead to perceived bias.

Although those who identify as lesbian, gay, bisexual, transgender and intersex have typically been under represented in the ADF, and there is currently a significant push to recruit more of these members into the Defence Force, along with women and ethnic minorities. The ADF has typically sought to achieve its recruitment goals through the use of recruitment campaigns and advertisements, and should be careful not to engage in political events.

Although women have served in the Australian Military since 1899, and notably in traditionally 'male' roles during WWII⁶, however on 27th September 2011⁷ the Australian Cabinet and announced by the then Minister for Defence Stephen Smith⁸, formally agreed to remove the

gender restrictions on women in combat roles. This has led to significant media coverage of the progress of women in these employment categories and the prevalence of females in almost all current recruitment advertisements. Recruiting is of course a valid domain for the ADF, although the argument can be made that the highly publicised 'women in combat' is now achieving as many or more political goals as it is enabling capability and meeting recruitment targets. This can be identified due to the relatively low interest, with only 20 women seeking to join combat corps by 2013⁹. In this case, Defence was essentially directed, though not forced as such, to conduct this change, and by doing so it has been used as a political tool outside of its scope as a defence force.

... argument can be made that the highly publicised 'women in combat' is now achieving as many or more political goals as it is enabling capability and meeting recruitment targets.

A leading example of women serving in combat roles is the Israeli Defence Force (IDF), however it has been claimed that this has been greatly exaggerated. In the IDF there are still several positions that are closed to women, such as armour, and the females in infantry roles are confined to units that maintain border protection with the only countries that Israel is at peace with, Jordan and Egypt¹⁰. The use of exaggerated or skewed statistics can shape the political and social environment, but will not assist the development of capability.

The ADF in Politics

The ADF has been restricted on its influence and public input into political and social matters. This is typical of modern 'Western' societies, and acts to support the government's legitimacy, whilst maintaining separation. To achieve that, 'the military officer must remain neutral politically'¹¹.

The ADF should not be separate from society, it should in fact represent that society's values and beliefs¹², and it should positively engage with and support the community also. It has however, recently begun to blur the line between that engagement and political / social statements. The ADF should represent Australian society, but it should also remain slightly apart from it in order to remain impartial and unbiased. As ADF members

have 'given up' their ability to publicly involve themselves in political matters or at times even the ability to voice their opinions whilst being identifiable as a defence member¹³; the ADF should maintain that same principle in the organisation.

The use of exaggerated or skewed statistics can shape the political and social environment, but will not assist the development of capability.

Although the ADF's participation in the Sydney Mardi Gras was to promote equality and respect for all, which the ADF does and should always champion, it was still a political act. Currently, the two major parties in Australian politics are conflicted on the issue of same-sex marriage. Participating in a parade that supports either of those views enters the ADF into a political debate in which, as an organisation, it should not be involved, and can be considered to have taken political sides. This is not a small matter as the Australian public traditionally has a high level of respect and trust in defence members, with the ADF ranked ninth out of forty occupations that Australians trusted in 2012¹⁴, therefore it is not outside the realm of possibility that this may in turn influence votes in the future.

Although the ADF's participation in the Sydney Mardi Gras was to promote equality and respect for all, which the ADF does and should always champion, it was still a political act.

Conclusion

Although the ADF should maintain high moral standards and conduct activities in support of this and the Australian community, it should be very careful of its involvement in activities that clearly show defence members participating in political activities. If this is not done, then the ADF risks compromising itself, its values, and losing the trust of the Australian people.

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Use military style to avoid bad decisions, says Jeffery

Brendan Nicholson Defence Editor
The Australian, Thursday, October 16, 2014

CHOAS followed the 2003 invasion of Iraq because the US government ignored military advice that 400,000 troops would be needed to maintain order says former governor-general Michael Jeffery.

The one-time Australian Army major-general and special forces commander delivered a public lecture last night on for politicians, public servants and the private sector to apply a military style of clear decision-making to major national and global issues such as scarcity of food, water and resources generally. That was needed to avoid poor policy development and implementation, he said.

Speaking at Victoria University, Major-General Jeffery said the US military commanders had a clearer idea of what was needed in Iraq in 2003, and of what could go wrong. Sending in too small a force was compounded by the Bush administration's decision to sack thousands of Iraq officials, police and soldiers, which caused a major breakdown in services and created an angry group of unemployed malcontents, he said.

Major-General Jeffery also referred to the current situation in Iraq with a warning that there was unlikely to be a long-term result in Iraq until a decision was made about who would send in ground forces. "An extension of the Iraq situation has occurred in more recent times with the political decision of President (Barack) Obama not to retain a US military force in Iraq to deal with unexpected contingencies, of which Islamic State is the most current and serious example," he said.

"Anti-ISIL countries are now faced with limited response options, in which the essential tool for dealing with that response, namely large numbers of disciplined troops and police on the ground to secure urban populations in particular and to arrest or destroy the Islamic State elements, is not likely to be available, at least for some time."

Major-General Jeffery said he was taught as an officer cadet a logical problem-solving process which set a clear aim and then identified key factors in achieving it, advantages and disadvantages and possible courses of action. "It is an immensely powerful decision-making process, but it depends for success on decision-makers who know their subject, are confident of their authority and don't mind being challenged by their subordinates when testing the proposed courses of action intellectually or in the case of military operational planning through war gaming," he said.

The ability to make it work depended as much on culture as it did on training, and the big question was whether this disciplined culture could be transferred within a bureaucracy that tended to focus on process, rather than good policy formulation and measurable results, and where the decision-makers sometimes displayed lack of interest in that process.

Cyber Security and the Soldier

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The rapid development of information technologies and the internet in recent decades has brought about worldwide change. Information technologies are now a major element of national power being used for economical, infrastructure and military purposes. The advantages of such systems are obvious, yet they also bring with them considerable risk, namely the risk of cyber attacks. Cyber attacks can provide disproportionate effects for military forces, compared to cost, and can act as a force multiplier if used correctly.¹ Therefore it is important for individuals to understand the risks associated with technology and how to mitigate that risk. While there is constant work on strategic plans, management and policy of cyberwarfare by the International Cyber Policy Centre, there has been very little done to educate soldiers and officers in the importance of cybersecurity.

Therefore it is important for individuals to understand the risks associated with technology and how to mitigate that risk.

This paper will define cyberwarfare and then analyse the effects of cyberwarfare at the strategic level of operations using a historical example. Its primary focus however will be on the effect to individuals and the need for education in cybersecurity.

The aim of this paper is to analyse cyber threats and cybersecurity to identify knowledge and training shortfalls throughout Army.

Cyberspace is widely being considered as the fifth domain of warfare by modern military forces and yet the definition of cyberwarfare is still contested.² The definition that will be used through this paper is 'Cyberwarfare is Internet-based conflict involving politically motivated attacks on information and information systems. Cyberwarfare attacks can disable official websites and networks, disrupt or

disable essential services, steal or alter classified data, and cripple financial systems, among many other possibilities'.³ It is important to note that this definition does not describe an attack on individuals as being cyberwarfare as this generally falls into the category of cybercrime. This paper, focused on a military context, will refer to attacks on individuals in the military as cyberwarfare.

Cyberwarfare aims to influence the will and decision making capabilities of enemies through the use of Computer Network Operations (CNO) of which three forms can be distinguished: Computer Network Attack (CNA), Computer Network Exploitation (CNE) and Computer Network Defence (CND). CNA is designed to disrupt, deny, degrade or destroy information in computers or Information and Communication Technology (ICT) networks themselves. CNE is intelligence gathering and exploitation of ICT networks. CND is the use of all measures necessary to defend ones own ICT networks from CNA and CNE. These three forms of CNO use multiple different techniques including but not limited to viruses, Denial of Services (DoS), Distributed Denial of Services (DDoS) and firewalls.⁴

Cyber actions are able to operate absent of any physical effect; however, cyberwarfare is most effective when used in conjunction with conventional kinetic warfare. This is made evident by the use of cyber attack in the Russia-Georgia war in 2008. This war is largely recognised as the first case in history of a coordinated cyberspace attack synchronised with a conventional kinetic attack, despite there being no evidence that Russia coordinated or conducted the cyber attack. Websites that related to Georgia's communications, finance and government were attacked prior to the conventional operations commencing. The result of this cyber attack was that when Russia launched its conventional attack the public could not access specific web sites for instructions and information.⁶ The use of cyberwarfare as part of the combined arms effect not only impacted the military through the exploitation of information prior to the attack but also affected civilians through the denial of services. In this case cyberwarfare was used effectively as a combat multiplier to achieve Russia's endstate. Despite this

being a relatively recent conflict there is little knowledge within Army about the effects cyberwarfare had. Cyberwarfare needs to become a part of training when discussing both military history and contemporary operations to understand the full spectrum of warfare. No longer is warfare just kinetic effect, all domains must be present while training both officers and soldiers.

Attacks such as this prove that it is possible for a nation to strike at another and cause significant strategic damage with relatively little cost and no risk to life.

The most common application of cyberwarfare is in information operations. Information is enhanced by ICT through increased shared situational awareness and therefore opens more avenues for information gathering. Through the effective use of CNO a military force can gain information superiority by exploiting weaknesses in an enemy's network to gain intelligence. At the strategic level this could have a wide variety of effects from revealing strategic plans, new capabilities and damaging information to the government. This threat is well acknowledged and significant effort is placed towards defending against this type of intrusion by using security measures such as closed networks for classified data.

CNO can also have a more direct and physical approach to meet a states political goal. Through the use of CNA it is possible to alter the data stored on an enemy's network, thus deceiving them potentially into a bad course of action. As seen with the Russia-Georgia war example, this type of attack can be a force multiplier when synchronised with conventional attacks. There is also the potential to attack not just information but critical infrastructure, with the best example of this being the computer worm known as Stuxnet. Stuxnet was first detected in 2007 and damaged Iran's uranium-enrichment facility at Natanz. It did this by turning valves on and off, meddling with centrifuges, wasting uranium and damaging equipment.⁷ This type of worm was designed to affect the Supervisory Control and Data Acquisition (SCADA) systems. SCADA systems are software based systems designed to control the operation of industrial machinery and is used worldwide in national infrastructure. Stuxnet was capable of physically destroying 5,084 out of 8,856 centrifuges in the Natanz facility.⁸ Although damage was caused by STUXNET, the overall strategic effect was

minimal. Iran has replaced the damaged centrifuges and resumed operation at the Natanz facility therefore reinforcing the need for cyber attacks in conjunction with physical effects. Attacks such as this prove that it is possible for a nation to strike at another and cause significant strategic damage with relatively little cost and no risk to life. The further advantage of cyberwarfare is anonymity. Although Stuxnet was eventually detected it is almost impossible to definitively tell who created it and who is responsible for the damage it caused. Countries such as America, China, Russia and Israel likely have the capacity to create and deploy such cyber weapons as well as potential political motivation. This is a powerful tool for smaller nations, who cannot risk a conventional war, to strike at the powerful or even individuals to commit acts of terrorism.

The use of cyberwarfare as part of the combined arms effect not only impacted the military through the exploitation of information prior to the attack but also affected civilians through the denial of services.

It is important for military members to understand the various strategic effects of cyberwarfare as they will be the people targeted, responsible for maintaining the integrity of computer networks and in the case of the Royal Australian Corps of Signals, eventually responsible for fixing them. As with all types of security in the military the onus is on every single person to be aware of the threats and defences in place however cybersecurity is often neglected. This should be rectified throughout Army at officer and senior non commission officer (SNCO) level to understand potential threats to an operation and its strategic goals, and should be reinforced by all commanders.

Arguably the most overlooked effect of cyberwarfare is the effect on individuals. Cyberattacks on individuals are commonly referred to as cybercrime, as the term war is defined as the military struggle between nations or groups of nations and warfare is engagement in or the activities involved in war or conflict. Due to the anonymity of cyberwarfare it is near impossible to know that a cyberwar is being conducted, and by extension near impossible for an individual to know that he / she is a participant. That is why this paper includes cyberattacks on uniformed individuals as a part of cyberwarfare.

Arguably the most overlooked effect of cyberwarfare is the effect on individuals.

As with the strategic effects of cyberwarfare, the effects on individuals can vary. CNE on individuals can be conducted for intelligence gathering purposes. Through the effective use of CNE an enemy can gather personal information on a military member, and like previous examples, use this in conjunction with physical effects. One potential threat to individuals is identity theft. Identity theft is normally considered a cyber crime not cyberwarfare, however when targeted at a military member it can impact the security of military forces. If enough personal information is gathered it is possible for an enemy to take the identity of a military member and potentially use that to infiltrate physical security measures on military bases. A successful identity theft can apply for and receive a passport in your name;⁹ therefore it is not a huge leap to assume that they can take on individual's military credentials. Identity theft is not a new threat; however with the digitisation of so many services like online banking and government databases such as driver's licences, it opens up the potential for identity theft through digital means. It is common for individuals to be unaware of the need for extra security on personal devices and this does not stop with computers but any device which can connect to networks. Most people, both civilian and military, now own a smart phone or tablet but fail to recognise the need for additional security. It is common for smart phones to be used for a range of personal administration tasks which handle personal and confidential details.

These devices are just as susceptible to attack and exploitation as computers, as they are essentially computers themselves. Despite this very few people use anti virus software or firewalls like they do with their computers. Malware can even be installed on smart phones through legitimately downloaded apps such as what happened with apps designed for androids such as Super Guitar Solo, that were altered by rogue programmers.¹⁰ This is due to a lack of education and understanding about the vulnerabilities that they are carrying in their pockets and is relevant across all rank levels. This basic level of understanding should be present in annual mandatory training as it is currently neglected in favour of protecting Army's image on social media. Despite Army's desire to preserve its members by providing annual training on topics such as heat injury, it does very little to provide the

same level of training in protecting oneself from digital threats. This could be attributed to a general lack of knowledge throughout Army or denial of the potential fallout cyber warfare could present.

This is due to a lack of education and understanding about the vulnerabilities that they are carrying in their pockets and is relevant across all rank levels.

Individuals must not only protect themselves from cyber attacks but also the information which they are privy to as military members. With the constant advancement of ICT it has become almost expected that at any time a person can connect to the internet and the military is no exception. The Defence Remote Electronic Access Mobility Service (DREAMS) allows military members to access the Defence Protected Network (DPN) from personal computers. Although the connection to the DPN is deemed secure, it is unknown if malicious software (Malware) can capture information off the personal computer. One example of this is keystroke loggers. Keystroke loggers are software that record each key pressed on an infected computer. This type of Malware can be installed on a computer system hidden on simple things like emails or e-greeting cards.¹¹ Through the use of keystroke loggers it may be possible for enemies to gain information such as DRN log on credentials or confidential information when using systems such as DREAMS. Therefore individuals must not only be educated and remain cognisant of security requirements at work but also at home on personal devices. Training on the risks associated with working on a personal device should be required prior to issuing any such device to minimise the potential risk of compromise while using these systems. Currently there are no security checks in place other than the simple accounting for DREAMS tokens. Commanders need to take responsibility for the requirement of security training prior to authorising the use of private devices for military purposes.

Cyber attacks can also be directed at an individual with the intent of physically harming them. This can be achieved through the use of cyber to conduct Psychological Operations (Psyops) on an individual target. Psyops are activities designed to convey selected information and indicators to specific foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behaviour of governments, organizations, groups,

and individuals.¹² The most prevalent example of how this can be achieved is by looking at cyber bullying. Cyber bullying almost always has an adverse affect on the target and can even lead to suicide.¹³ Cyber bullying is conducted by normal people with no training in the art of influencing people and yet can still have drastic physical effects on the individuals that they target. It is then not a large intuitive leap to assume that people trained in Psyops would be able to target individuals and influence them in a negative way to achieve a military endstate. This presents a risk to all military members, especially those who use social media as it is a prime conduit to allow this type of attack to occur, providing both the means and personal information required. Social Media awareness training is now a part of Force Preservation Training at the beginning of every year. However this training is more focused towards protecting Army and Defence's image and preventing military information from being shared. There is very little content that addresses the security issues or about the potential for social media to be used to attack its users. A re-evaluation on the purpose and scope of this training is required to provide effective and contemporary Force Preservation Training.

Cyber bullying is conducted by normal people with no training in the art of influencing people and yet can still have drastic physical effects on the individuals that they target.

The rapid pace of technological advancement is fast outstripping the average person's ability to comprehend the dangers of cyberwarfare. It is the responsibility of everyone to understand the risks they take when operating in the fifth domain, especially for military personnel who are privy to sensitive information. Cyber attacks can come in a large variety of forms, both covert and overt, and can have significant impact on organisations and individuals alike. As such it is the commanders, supervisors and leaders who must ensure adequate awareness and training is given to their soldiers.

The following recommendations are made:

- Commanders take an active approach to cyberwarfare education through mandatory awareness training which should include:
- History and strategic effects of cyberwarfare;
- Types of malware and their physical effects;

- Individual security measures; and
- The psychological effects of cyberwarfare.

Unit representatives receive cyberwarfare training to increase the knowledge and understanding of cyber within Army.

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Qld has highest number of ADF treated for mental health issues

By David Chen ABC News Online
Updated Mon 22 Jun 2015, 8:28pm

Queensland has the highest number of Defence Force personnel in the nation treated for mental health issues, new figures show. The Defence Force said in the last financial year, 813 personnel underwent rehabilitation after being diagnosed with a mental health problem. Of those, 308 people were from Queensland, and the majority were from the Army. Nearly half of those men and women returned to work afterwards.

Senior psychologist from the veterans' charity Mates4Mates, Janice Johnston, said it was a sign more soldiers were seeking help. She said mental health experts had to deal with a number of challenges when treating Defence personnel suffering from mental health issues. "It's not a simple condition, and PTSD (post-traumatic stress disorder) often comes with other things attached to it that make it much harder to treat," she said.

Afghanistan veteran Matthew Campbell was injured by an improvised explosive device in 2011 and has been diagnosed with post-traumatic stress disorder. "It initially developed while I was in the Army," he said. "I thought I had some pretty crazy anger issues. I guess I realised something else was going on." Mr Campbell said there is still stigma around mental health issues in the Defence Force, preventing many people from seeking help. He urged others to come forward. "Don't think you're alone because you're not," he said. "I would hazard the guess that [there] are thousands of people now that are struggling in the darkness by themselves."

Ms Johnston said that while situation had improved, there was still a long way to go. "Talking a bit more about it does help to reduce the stigma but there's still a lot of stigma involved in saying you've got a mental health problem," she said.

"If the doctor told you to take the nasty chemotherapy or drink the green smoothie then you'd do that, but one of the problems with PTSD is avoidance disorder.

"So people don't engage with services designed to support them because they're highly anxious. "That's a hard barrier for people to get past. "But once you get the bum on the seat, they're very thankful."

The Defence Force said personnel are being provided with high quality care which includes occupational rehabilitation.

Complexities of Cyber Warfare

Captain NK Pychtin
4th Regiment RAA

'Indeed, whenever a new idea is developed, as for example ballooning, warfare immediately takes possession.'

Fredrik Bajer (Nobel 1908)

Introduction

Cyberspace is a perpetually evolving environment. The accelerating rate of advances in technology has created opportunities for exploitation by those with the means and will to do so. With the proliferation of internet and cheap computers the ability to access cyberspace has continued to increase, with a growth of 753% during 2000–2015 and 42% of the world are actively using the Internet (Internet World Stats 2014). Cyberspace has fallen victim to criminal, terrorists and state actors who seek to exploit the virgin landscape. The relative immaturity of cyberspace and lack of regulation has seen cyber warfare develop with blurred boundaries.

There is a lack of consensus internationally on what constitutes a cyber attack, an act of war in cyberspace, or cyber terrorism ...

This essay will firstly define cyber warfare, while secondly providing an insight into the perpetrators of cyber warfare and the challenges of attribution and retaliation. Lastly, case studies will be used to illustrate the ease of penetration of deliberate cyber attacks against both mature cyber states and the broader community.

Cyber Warfare

The aberration of cyberspace is limited with no 'acceptable' policy of cyber operations. This fact is blurred due to the reality that states are constantly under cyber attack from multiple sources, not just one. This is further exasperated through the complications of determining cyber reconnaissance from cyber attack (Krepinevich 2012).

There is a lack of consensus internationally on what constitutes a cyber attack, an act of war in

cyberspace, or cyber terrorism (Stevens 2014). Rivera (2014) states the 'purpose of cyber warfare is to achieve political and strategic military objectives via cyberspace'. This statement ignores a significant category of actors within cyberspace: non-state. The role of non-state actors can not be ignored in cyber warfare, as they too employ their weapons to penetrate computers or networks to disrupt or damage computers of their networks (Krepinevich 2012). The simplest means of conducting these attacks is through Distributed Denial of Service, where targeted network devices are overwhelmed (Ball 2011).

... cyber warfare and cyber weapon development is an offense dominant competition, where given equal resources the attacker will always prevail.

The marked absence of legislation, precedent and international norms of cyber warfare (Stevens 2014) can be compared to the air power development during the 1930s, in that states developed weapons without the opportunity to fully employ them against another advanced state (Krepinevich 2012), and is equated to a new arms race (Ganshani 2014, p.1). This is highlighted by the increasing emphasis of states on growing their cyber warfare capability; The FY 2014 US Defense budget's top priority was the rationalisation and drastic budgetary cuts to all branches of the US military, yet force size increased for units responsible for cyber operations ([US] The Department of Defense 2013, pp. 2-2 & 3-5).

This is further exacerbated by the fact that cyber warfare and cyber weapon development is an offense dominant competition, where given equal resources the attacker will always prevail (Krepinevich 2012). The ability to defend cyber attacks is extremely complex and vulnerable to the rapidly evolving technology. Cyber attack targets can range from individuals, to governments and the industrial complex. The key targets of military cyber attacks have been identified as critical

infrastructure components, rather than people, equipment or fortifications (Rivera).

Cyber attacks suffer from the challenges of identification of attackers and the deployment of adequate defences to both deny and deter (Posner 2011). Identifying attackers is possible and as Former Deputy Secretary of [US] Defence, William J. Lynn said, "it is difficult and time consuming to identify an attack's perpetrator" (Krepinevich 2012). There are numerous measures that cyber attackers utilise to mask their identity and location. The creation of proxies in other countries, utilisation of IP masking and unknowingly slave systems all provide misdirection and anonymity to the attacker. The defender conversely is at the mercy of attackers. The primary means of cyber defence is risk mitigation, whereby systems create enough of a barrier that attacks are uneconomical and softer targets are sought (Krepinevich 2012). Krepinevich (2012) further argues the most workable defence is a static or offline defence, with the network not connected to the Internet. This does not make it immune to attack from insider threats; however it comes at the cost of all the social and economic benefits of the Internet.

Cyberspace Actors

The leading state actors in cyber warfare are China and the US. As Ozlak (Cyberwarfare 2014) describes, cyber war capacities are not only the domain of China and the US, they are spreading horizontally to middle and even minor powers. Krepinevich states the barriers to becoming a modest cyber power are relatively low, with states such as North Korea, which is resource and technology poor, being able to execute cyber attacks against regional and global powers.

... the barriers to becoming a modest cyber power are relatively low ...

The other significant actors fall under the can be categorised of non-state. These range from cyber criminals whose crime is estimated to be annually extracting up to 20% of internet income, accounting for over \$500 billion (McAfee 2014, p.6). These range from the activist(s) or 'hacktivists' such as Anonymous,

to the cyber terrorists; who have hacked the US Centcomd websites (BBC Jan 12, 2015) or individuals hack US military satellites (Botelho 2015). There are also the cyber security experts who are abusing exploits to illuminate the weaknesses in systems, such as IOActive Labs, who remotely commandeered a Jeep Cherokee (Business Insider) or hacking flying aeroplanes using their in-flight entertainment systems (Kim Zetter 2015, p.4). These actors can also take a *condottieri* approach and sell their skill, whether this is a cyber-poor state, criminal or terrorist group. Their use further assists sponsors with plausible deniability as to the attack's true originator.

The blurred line between 'cyber combatant' and cyber user reinforce the difficulty of attribution and subsequent targeting.

Coupled in this mixture are the offline actors (or 'insider,') who has access to the networks. These are people who abuse their access and steal data. The most notable malicious example of this was Edward Snowden, a former contractor of the CIA who downloaded and released vast quantities of sensitive information via Wikileaks. Then there is also the unknowing individual who utilises an infected device, USB and comprises the network, such as the case for Stuxnet.

As Krekel argues 'the only distinction between cyber exploitation and attack is the motive of the actor'. The skills needed to penetrate a virtual network for intelligence collection are comparable in peace as they would be in war. The blurred line between 'cyber combatant' and cyber user reinforce the difficulty of attribution and subsequent targeting. The other contributing factor is that organisations that have been successfully attacked are less likely to publicly disclose this fact. The lack of transparency further prohibits the cyber security world from developing successful defences.

Case Study

Stuxnet is an important case study, as it is the first known example of a cyber weapon that produced physical effects' (Bryant 2016). This was a joint cyber attack attributed to Israel and the US, which caused significant delay to Iran's uranium enrichment facility in Natanz during 2009 and 2010. The Stuxnet virus was uploaded via an infected USB and spread over the networks causing equipment failure within the facilities (Zetter 2011, p.4). This precision weapon was engineered to specifically attack the network within the Natanz facility. Stuxnet was highly successful and was able to spread

throughout the Middle East before it was treated (Bryant 2016).

'Conficker', was a self propagating worm which first appeared in October 2008 with the virus affecting individual, business and multinational companies, with estimates of several million computers infected (Piscitello 2010, p.1). In response to the widespread infection, cyber security experts, anti virus companies and government agencies joined forces to combat Conficker. This pivotal point highlighted that in a cyber emergency, security communities were willing to join forces to combat a threat (Picitello 2010, p.2).

The Conficker worm was viewed as a dangerous threat because it was an open ended tool that could be utilised for multiple purposes, without identifying the author's true motivation (Conficker Working Group 2011, p.9). Phillip Poras, a research director at SRI International noted, 'Conficker could be turned into a powerful offensive weapon for performing concerted information warfare attacks that could disrupt not just countries, but the Internet itself'. (The New York Times 2009). Conficker was viewed as a serious threat to cyber security and significant fears abounded of its possible 'weaponisation' and use in a cyber attack.

This pivotal point highlighted that in a cyber emergency, security communities were willing to join forces to combat a threat.

Attributing Conficker has proven impossible. Some researches have assessed an Eastern European criminal organisation or a state was responsible for Conficker. Despite this assessment, there is no refutable evidence to confirm that a state was responsible for it (Conficker Working Group 2010, p9).

The release of documents by Edward Snowden showed that even the US Department of Defence is not immune. The documents indicated that China had stolen designs for the F-35 Lightning II fighter jet, as well as information relating to the B-2, F-22 Raptor and nuclear submarines (Markoff 2015).

Conclusion

Cyber warfare is a developing and largely untested domain. The lack of legislation supports the cyber attackers, where the ability to attribute cyber attacks to states and non-state actors alike is incredibly challenging and costly. The ability to successfully defend against them is often

unworkable, and when states or non-states seek to specifically target an objective, they can have a large amount of success. The adage of 'the best defence is a strong offense' holds true in cyber warfare, where the offensive has the dominance.

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Most Australian soldiers lack mental resilience to deal with combat

By Isobel Roe ABC News Tue 26 May 2015

Most Australian soldiers do not have the high level of mental resilience needed to deal with combat, a survey of Army troops and supervisors has found. Southern Cross University and Griffith University researchers surveyed more than 95 soldiers and 21 supervisors, funded by Army Research Australia. Their "psychological capital", made up of self-confidence, optimism, hope and resilience to continue a task despite problems, was assessed.

Southern Cross University's Professor Yvonne Brunetto said 80 per cent had some level of resilience to cope with the stresses of combat and, of them, less than a handful were deemed to have a high level of resilience. "They have a mechanism, a mental mechanism, and so it doesn't cause the longer term stress that happens in those people with low psychological capital," Professor Brunetto said. The study found 20 per cent had no resilience. Professor Brunetto said the results suggested the Defence Force was sending young men and women into combat without proper preparation.

"That means that they're going over to Afghanistan and to other quite difficult places and they don't have this resilience, inbuilt resilience to help them fight the stress caused by these difficult situations," Professor Brunetto said. She added: "They wouldn't send soldiers to a war-torn area without appropriate weaponry. Therefore, they shouldn't be sending them without appropriate psychological armour."

The research found more than one in 10 soldiers come back from a deployment with some sort of mental scarring that also decreased their capacity to be resilient. The research, which began last year, has found there was direct correlation between mental resilience and the ability to handle stress. "Psychological capital provides a buffer for our soldiers so that no matter what incident they face; instead of it causing a huge amount of stress, it actually has a reduced impact," Professor Brunetto said. "The negative is that in fact, a lot of soldiers don't have high levels of psychological capital."

Despite many soldiers lacking the predisposition for mental strength, Professor Brunetto said it could be taught. United States academics had developed an intervention program and Southern Cross University researchers would attempt to replicate it. "Less than a decade ago we believed you were either born with it or you just had to cope with the outcomes of having high stress, because there was no way you were going to get it," Professor Brunetto said.

The study will be handed to the Australian Army. The ABC has contacted the Defence Department for comment.

Testing the Logistic Supply Chain at Unit Level

Captain I Mcl Carnegie
Quartermaster
4th Regiment RAA

Close Support elements must have commensurate levels of mobility, protection, responsiveness and flexibility to those of the fighting units they support.¹

Background

Plan BEERSHEBA, the Army's modernisation plan is designed to provide three like combat Brigades to sustain a 36 month force generation cycle². Plan BEERSHEBA incorporating the new CSS CONOPS³, alongside a significant increase in the operational tempo of the ARA and wider Defence over the last decade has created significant challenges to Combat Service Support (CSS).

Vast amounts of time and resources have been utilised to ensure that Defence has an up to date, efficient Logistic Supply Chain.

Vast amounts of time and resources have been utilised to ensure that Defence has an up to date, efficient Logistic Supply Chain. CSS lines of support⁴ from fourth line (National Support Base) to first line (integral to unit) are clearly defined in doctrine and are robustly tested during the force generation cycle. Testing CSS from fourth line to second line (organic to Brigade) is quantifiable and assessable; however, how is first line CSS tested and more importantly measured? This essay discusses how and whether this function is adequately tested during the force generation cycle.

Scope

Firstly the question must be asked whether the combat units integral CSS elements are correctly trained, equipped and tested for modern warfare. To answer this question modern warfare must be defined; it is easy to utilise the commonly used adage of "training for a war rather than the war". Does this mean that post operations in Afghanistan

we will see the return to the all out, high intensity warfare model of the Cold War which had linear, secure lines of communication through Allied Countries with large amounts of prepositioned stock strategically placed along them? This is highly unlikely; although the modern battlespace of the Twenty First Century will not always be asymmetric⁵, it is likely to be complex, chaotic, fragmented, often protracted with no clearly defined 'front' or 'rear'. Obviously this will have huge implications on the way CSS is carried out at the integral level, requiring CSS elements to move independently through uncontrolled and insecure areas, having to be fully prepared for contact with the enemy.

First Line (Integral Support)

First line (under unit control) or integral support (providing unit viability) is designated as the "logistic CSS capability necessary to provide unit viability that is the level of support necessary to maintain a unit as its designated readiness level, regardless of the assigned mission"⁶. This is conducted at unit level by way of the A2 Echelon resupplying the A1 Echelon who will in turn resupply the Fighting (F) Echelons. Integral CSS will also include the backloading of battle casualties (both materiel and personnel).

... it is likely to be complex, chaotic, fragmented, often protracted with no clearly defined 'front' or 'rear'.

Vehicle / Equipment Availability

Frequently CSS elements on exercise will deploy to resupply (utilising distribution points (DPs), exchange points (EPs), dumping or caching) Force Elements (FE) with unprotected logistic convoys, with no or limited communication systems. Similar trends are the utilisation of notional convoy support with the assumption that this will be

provided on operations or that host/supporting nations will assist with this task.

... utilisation of notional convoy support with the assumption that this will be provided on operations or that host/supporting nations will assist with this task.

There is also an assumption that integral support will not be required as second line elements will resupply direct to the F Echelons, as was the norm on Operation Slipper. There are also numerous other reasons why this occurs; an ageing vehicle fleet in short supply and a lack of support weapon systems or personnel trained to use them are two reasons. The Land 121 rollout will alleviate much of these issues providing protected logistic vehicle systems, however this will be dependent on the rollout being successful and sufficient training being conducted.

Training

Are integral CSS elements correctly trained to carry out their role in the battlespace? The answer would have to be often not. Again there are a lot of reasons for this; trade training and in barracks roles taking primacy being the main reason, with the argument that if logisticians cannot carry out their primary role they are redundant on operations.

Long gone are the days where commanders paid little or no attention to logistics and expected it just to happen.

True as this may be, if CSS elements are not adequately trained to provide protection for CSS links and nodes, provide convoy protection, carry out IED drills, anti ambush drills etc they will become a burden on combat units, the very units that CSS elements are supposed to be supporting and thus eventually degrading the forces combat capability. Another as yet unanswered question is how the new CSS CONOPS, with the centralisation of CSS assets will affect training and capability.

Prioritisation, Apathy or Risk Aversion

Most units', Unit Commanders and Sub Unit Commanders have differing thoughts on how their integral CSS will be tested. Long gone are the days

where commanders paid little or no attention to logistics and expected it just to happen. The modern commander is fully aware that battles and campaigns can be won or lost by logistics. Lt Gen Sir Peter De LA Billiere who commanded British Forces on Operation Granby stated that "the Gulf War was kept short, sharp and with the minimum casualties due to the efficiency of the logistic back up which was a major and critical factor in this achievement."⁷ It has also not gone unnoticed by commanders how recent allied operations in the Middle East have been a resounding success or an abject failure with the fulcrum often being a successful supply chain. The second battle of Fallujah in 2004, although arguably a strategic failure showed how integral CSS Elements and clever logistics proved pivotal in maintaining the momentum of a large scale, hugely complex and protracted battle.⁸

There is no requirement to 'reinvent the wheel', the wheel is not broken, however a change in mindset is required to prioritise training ...

It would be unfair to say that there is apathy towards first line logistics; however it may be fair to say that commanders will prioritise their limited training time and resources on their units' primary role, rather than fully testing the supply chain. Also reduced training periods make it very difficult for the supply chain to be fully tested; units will often deploy with enough combat supplies for the duration of the activity, thus not allowing the organic CSS elements to be tested at all. History tells us how many campaigns and battles have been lost or ground to a halt due to an inefficient or broken supply chain. Also will commanders be willing to test and risk breaking their organic CSS elements whilst they are being certified by Higher Command?

The question must also be asked whether the Army is too risk averse and commanders even after nearly sixteen years of continuous operations are unused or unwilling to risk deploying unsupported integral CSS elements in the battlespace?

The Way Forward

There is no requirement to 'reinvent the wheel', the wheel is not broken, however a change in mindset is required to prioritise training to ensure that integral CSS elements have the ability to carry out their role of resupplying combat units and accept

failure in the supply chain during training. The Land 121 and 125 projects will go a long way to providing integral CSS elements with the correct vehicles and equipment to be protected, mobile and self-sufficient in the battlespace. To achieve this a large training burden will have to be accepted so that CSS soldiers have the knowledge, skills and experience to not only function correctly in their role but also to carry out the Army's intent of "every soldier an expert in close combat"⁹.

Conclusion

We must always put priority on the supply chain as a whole; however not forget about the importance of integral support at the 'sharp end'. For units to be logistically fully prepared for offensive, defensive and stability operations,¹⁰ we must train as we mean to fight¹¹.

Endnotes

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10. Australian Defence Doctrine Publication, ADDP 3.0. Part 1, chapter 2, para 2.33.
11. Train as we mean to fight: Think Defence retrieved the 25 July 2015, from the Think Defence Website at: <http://www.thinkdefence.co.uk/2014/04/train-mean-fight/>

IS: Fall of Ramadi poses threat to Australian troops

612 ABC Radio Brisbane; Fri 22 May 2015

Islamic State's capture of the Iraqi city of Ramadi poses a threat to Australian and New Zealand troops who are now in a precarious position, counter-insurgency expert David Kilcullen has warned. More than 300 Australian troops, many from the 7th Brigade from Enoggera Barracks in Brisbane, are at Camp Taji, north of Baghdad, along with New Zealand troops. The Australians are now positioned less than 80 kilometres from Islamic State forces in Ramadi, which was captured by Islamic State forces last Thursday.

"There's an Australian and New Zealand contingent ... that are there running training for the Iraqis, and they are a couple of hours' drive from where the Islamic State forces are now," Mr Kilcullen told 612 ABC Brisbane.

Mr Kilcullen warned that the problem was compounded by the fact that the fall of Ramadi meant that 3,000 American troops situated at Al Asad Air Base, north-west of the city, were now effectively cut off from the rest of Anbar province. "The Iraqi military is massing around a base called Habbaniyah, and there's also a base in Fallujah which they're trying to link up in order to prevent ISIS from controlling all of Anbar province - but it is certainly a risk," he said. "Just to be clear, we're not talking about the Alamo here. People aren't surrounded and besieged.

"Anbar is a desert province and it's really a network of cities connected by roadways and waterways and so on. ISIS basically holds the central part of the province, and that's very disruptive to what everybody else is trying to do." Mr Kilcullen said Islamic State had "figured out how to adapt and respond to the international air campaign that's been running since last August, and they've recovered their ability to do offensive manoeuvres".

Towns like Taji, where more than 300 Australians and 140 New Zealanders are based, are looking precarious. Mr Kilcullen said that while it was highly unlikely the terrorist group's fighters would move to seize the Taji base, there could be a significant spike in violence in the satellite cities around the outskirts of Baghdad.

"I think the important thing here is to not panic but also to recognise that a lot of this happy talk that's been going on for the past few months about how ISIS on the run and we're pushing them back and so on turns out to be little bit premature," he said.

A Defence Force spokesperson told the ABC the ADF constantly reviewed its measures to protect soldiers on the ground in Iraq. "Defence planning includes detailed threat and risk assessments that are designed to ensure that ADF personnel are as well protected as possible."

Mr Kilcullen said IS forces were unlikely to be able to mount a repeat of the "blitzkrieg" which saw them sweep into cities across northern Iraq last June. But he said Australian forces were now dealing with an enemy that had adapted its fighting style in the face of coalition in air strikes. "[Islamic State has] figured out on the fly how to fight us the way that we've been fighting them over the last few months," he said.

Indigenous Capacity Building: The Officer Corps

Captain BJ White
4th Regiment RAA

Skilled officers, like all other professional men, are products of continuous and laborious study, training, and experience. There is no short cut to the peculiar type of knowledge and ability they must possess. Trained officers constitute the most vitally essential element in modern war, and the only one that under no circumstances can be improvised or extemporized.

General Douglas MacArthur

Introduction

Indigenous capacity building is a key characteristic of modern warfare, and the development of an effective, legitimate and accountable security institution in a supported nation is a crucial component required to support the longer term stability of the nation. (Head Modernisation and Strategic Planning, 2009) The development of a strong officer corps in a fledgling army is critical, and recent failures in Iraq have raised questions of the effectiveness of the capacity building that was led by the US after the 2nd Gulf war.

The concept of a modern professional officer corps has its roots in the 19th Century.

This essay will analyse the effect that an officer corps can have on an army, and the importance of developing the officer corps as part of indigenous capacity building.

The Origin of the Professional Officer Corps

The officer corps is a vital component of any military. It is the leadership; it possesses and imparts professional expertise, it determines the military mind set, and it upholds and continuously revises the military ethic. (Caforio, 2006) Most modern armies adopt a dual command structure. One group (enlisted) focuses on the job – the capability and technical aspects required, and the other group focuses on the command and the employment of the capabilities.

The concept of a modern professional officer corps has its roots in the 19th Century. In 1808 the Prussian government issued a decree on the appointment of officers which detailed the standard of professionalism required of them: “The only title to an officer's commission shall be, in a time of peace, education and professional knowledge; in a time of war, distinguished valour and perception. From the entire nation, therefore, all individuals who possess these qualities are eligible for the highest military posts. All previously existing class preference in the military establishment is abolished, and every man, without regard to his origins has equal duties and equal rights”. (Huntington, 1957)

Throughout the Napoleonic wars officers began acquiring a specialized technique to distinguish themselves from the soldier and began to develop the standards, values and organization inherent to that technique. (Huntington, 1957) By 1900 most modern armies had a professionally based officer corps.

A ‘Strong’ Officer Corps

A strong officer corps breeds officers who are competent at their profession, demonstrate by example the highest standards of moral and ethical behaviour and are continuously focused on self-improvement, and spend a significant amount of time learning about themselves, their craft, and the people they work with. They are self-disciplined and self-motivating. (American Forces Information Services, 1988)

One example of the effectiveness of a strong officer corps, coupled with a brilliant tactician is that of General der Panzertruppe Hermann Balck, who commanded the 11th Panzer Division. In three short weeks his lone panzer division virtually destroyed the entire Soviet Fifth Tank Army. Balck faced staggering odds – the Soviets commanded a local superiority of 7:1 in tanks, 11:1 in infantry, and 20:1 in artillery. In only a few months Balck's

division recorded one thousand enemy tank kills. (Lockenour, 2001)

The importance of developing a strong officer corps early cannot be understated. General MacArthur firmly believed that an army could survive with a shortage of rations. It could be insufficiently clothed and housed. It could even be poorly armed and equipped, but in action, it was doomed to destruction without the adequate leadership of its officers. (Imparato, 2000)

Capacity Building

The majority of modern military academies focus on developing trainees in three areas: Military skills – the fundamentals of military training and basic military skills; Academic study – the developmental of a scientific and analytical mind; and the development of the trainee on the personal level – morals and ethics. (Hans-Kramer, 2007) This development is primarily conducted on enlistment.

Developing an Officer Corps

Selection

The development of a suitable process for identifying and selecting potential officer candidates is crucial. Typically, supported nations are in the midst of civil conflict, often along ethnic and tribal lines, and the existing officer corps is likely to be heavily biased in one direction. (Hans-Kramer, 2007) The selection process should be fair, impartial and equally weighted across ethnic backgrounds.

The development of a suitable process for identifying and selecting potential officer candidates is crucial.

Afghanistan maintains an effective selection process. Based off the UK's Army Officer Selection Board the process involves identifying suitable candidates through a series of written tests and applications. A smaller number of applicants are then called forward to attend a selection board in Kabul, where academic, physical, and mental and aptitude tests are conducted prior to final selection. The presence of mentors assists in ensuring that any opportunities for patronage or favouritism are kept out of the system. (Mashack, 2012)

The Institution

Most military academies are typically based on one of two models – the Royal military Academy Sandhurst (RMAS) or the United States Military Academy at West Point (USMA). The primary difference between the two is the length of the course and the civil accreditation. RMAS conducts a 44 week commissioning course, whereas USMA conducts a 3 year course and grants a Bachelor of Science Degree. (Rejai, 1996)

Examples of Indigenous Capacity Building

India

The Indianization of the Indian Army Officer corps, and the transformation of the colonial Indian army into a modern national army is a prime example of an effective indigenous capacity building program, supported by the development of the officer corps. (Barua, 2003)

Prior to the First World War, Indians were not eligible for commission as officers in the Indian Army. Experiences in WW I led to British allowing Indian cadets to study at the Royal Military Academy Sandhurst (RMAS) and the establishment of the Indian Military Academy at Dehra Dun in 1922.

The Indian Military Academy was modelled off RMAS, and was initially designed to prepare cadets for entry to RMAS, however, by 1932 the academy was producing Indian officers for commissioning into the Indian Army.

On the outbreak of World War II, trained regular officers of any kind were a precious resource, and the academy expanded to produce a larger number of graduates. All policies of segregation were abandoned. (Heathcote, 1995). When India declared independence in 1947 they were supported by a strong officer corps.

Botswana

The Botswana Defence Force (BDF) maintains a professional and respected army. When the BDF was first formed in 1977, their training was mostly paramilitary in nature, and most members only held a primary school educational certificate. In March 1980, Botswana entered into a training agreement which provided American training for the BDF. This commitment has been sustained over the years. In fact the US has been the largest single contributor to the sustained development of the BDF to date.

In 1977 the BDF a primary school education as the entry requirement for privates or non-commissioned officers, and the Cambridge Overseas school certificate for officer cadets. Today, the BDF recruits Cambridge school leavers as privates and degree holders as officers.

Afghanistan

Indigenous capacity building within Afghanistan has only recently focused on the development of the officer corps. The National Military Academy of Afghanistan is based on the USMA and aimed at developing graduates into the Afghan National Army with a four-year bachelor's degree. The Afghan National Army Officer Academy is a 12 month course with a vision of selecting and preparing quality platoon leaders for specialised training within the ANA. There have been limited studies on the effectiveness of these academies. (Mashack, 2012)

Iraq

In 2003, the Iraqi army, with support from military advisors from the UK, reopened the Baghdad Military Academy. Supported by a team of 35 coalition military advisors the Academy sought to mirror principles of the Sandhurst Military Academy, and develop and train the future Iraqi officers.

Whilst there were a significant number of factors that contributed to the collapse, poor leadership and a weak, ineffective and heavily politicized officer corps was a key factor.

In August 2006, the speaker of the Iraqi Parliament Mahmud Mashdani argued that American training was not raising the performance level of Iraqi troops and was damaging the legitimacy of the Iraqi Army among the Iraqi populace. He said: "The training is done in the American Way and in accordance with the American mentality which the Iraqi people hate. Thus the Iraqi people view this security force as one to protect the Americans. (Al-Marashi, 2008)

On 6-7 June 2014 the 2nd Division of the Iraqi Army faced a numerically inferior Islamic State force in Nineveh province. A number of soldiers reported that their positions collapsed without a shot being fired. They left behind weapons, vehicles and uniforms. Whilst there were a significant number of factors that contributed to the collapse, poor

leadership and a weak, ineffective and heavily politicized officer corps was a key factor.

Conclusion

It is difficult to analyse the exact effect that an officer corps has on a modern army. Many military failures are often attributed to other causes such as poor training, corruption and poor logistics, all of which potentially have their root in poor leadership. The development of a strong officer corps is a key component of indigenous capacity building, and the development of a stable security force.

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Mental and Emotional Resilience Training Re-examined

Lieutenant Anthony Lewis
4th Regiment RAA

'The mental battles fought by soldiers were frequently less a matter of the spirit fighting the flesh than the spirit fighting itself; not so much mind against body as the mind against itself.'

Mark Johnston¹

The aim of this essay is to discuss the merits of the Army providing a course, either internal or external, of a broader training curriculum, designed to increase the mental toughness of its soldiers. It will focus on the mental and emotional resilience training currently undertaken by the Australian Army. It will also briefly discuss measures taken by the American Army. It will then detail what results the Australian systems have generated. Finally, it will examine potential issues in the current schemes and outline alternatives for the Australian Army.

Such adverse, potentially dangerous and chaotic conditions are inherent to the profession of arms and require a degree of mental and emotional fortitude not essential in civilian life.

Current Measures

Mental and emotional resilience is described by the Directorate of Strategic and Operational Mental Health as 'the sum total of psychological processes that permit individuals to maintain or return to previous levels of well-being and functioning in response to adversity².' In other words, it is the tools one has in their mental repertoire that permits them to act both effectively and decisively for extended periods under conditions that are considered arduous. Such adverse, potentially dangerous and chaotic conditions are inherent to the profession of arms and require a degree of mental and emotional fortitude not essential in civilian life. The reason Army takes such a significant interest in developing resilience is because mental robustness is vital towards

lessening the detrimental effects of exposure to stressors and subsequently maximising a member's effectiveness. The following paragraphs aim to provide an overview of the current measures being taken to instil the cerebral armour necessary for such duties.

Through the program, personnel are taught to 'test' whether their first reaction to a situation is the best response and, if not, 'adjust' it ...

The curriculum currently in place within the Australian Army consists of a program called BattleSMART (Self-Management and Resilience Training), which is a 'cognitive-behavioural based program that aims to develop both arousal reduction techniques and adaptive cognitive coping strategies³.' The mantra of the program is 'Test and Adjust your Initial Reaction.' This training borrows concepts from clinical psychology and focuses on four areas (physical, thoughts, emotions and behaviours) which have been assessed by psychologists to determine an individual's response to stress⁴. Through the program, personnel are taught to 'test' whether their first reaction to a situation is the best response and, if not, 'adjust' it with the myriad of coping strategies detailed within the BattleSMART program.

The program is delivered to new recruits in two 40-50 minute lessons via PowerPoint, instructional video and direct involvement in small group discussions. This takes place during the initial weeks of training. An additional 'booster' lesson is available later if required within the recruit training program. The early delivery is intended to supply recruits with coping strategies from the onset of training and therefore stem the tide of psych or 'at own request' discharges. The program takes into account the way we think about problems, the way we deal with situations and the resources we have to help us. It also highlights the ability to recognise

adaptive from maladaptive strategies and adjust one's responses as needed to remain effective. It attempts to build resilience through a variety of skill sets. The main four being the ability to control one's physical responses (arousal reduction), the ability to maintain intelligent thinking (cognitive skills which involve blocking unhelpful thoughts, reframing and lateral thinking methods), resolving interpersonal difficulties (teamwork) and managing and developing these skills in others (leadership).

Having the information delivered by drill sergeants with a decade of experience and multiple deployments, acts to add a level of credibility to the information which it may have been lacking if its source had been a white collared psychologist wearing glasses and a tweed jacket.

Another component in the effort towards increasing the Army's mental toughness is the Longitudinal ADF Study Evaluating Resilience (LASER) conducted by the Australian Centre for Posttraumatic Mental Health. It commenced in late 2009 and follows new ADF members through the first five years of their career. Its aim is to determine an individual's psychological and behavioral attributes in order to understand their likely response to stressful events. Once the attributes that predict a high level of resilience can be identified, those traits would become highly sought after during recruitment and possibly aid in determining what career stream best suits an individual.

'LASER also builds on previous research by examining the experiences of members both before they entered the military as well as during military service⁵. This information will give researchers some insight into what background produces 'resilient' attributes and perhaps lead to more targeted recruiting efforts. In general, the study's findings will be used to advance mental health screening, inform mental health policy and determine selection criteria for certain roles within the ADF. In order to provide a broader perspective, the efforts taken by the American Army will be detailed in the following paragraphs.

In 2010 the U.S. Army's response to developing mental toughness was to "require its million-plus soldiers to be trained in 'emotional resilience' or 'psychological hardiness'. The training, led by the

University of Pennsylvania's Positive Psychology Centre, teaches concepts such as focusing on what goes right, expressing gratitude and analysing and correcting negative views of ambiguous events⁶." This \$117 million dollar effort was the first time a psychological training program had been mandated Army-wide.

The U.S. program involves psychologists training sergeants in the aforementioned concepts. Sergeants then pass on the lessons they have learned to new recruits at initial training establishments. Having the information delivered by drill sergeants with a decade of experience and multiple deployments, acts to add a level of credibility to the information which it may have been lacking if its source had been a white collared psychologist wearing glasses and a tweed jacket. Soldiers also complete a questionnaire to determine their strengths and weaknesses in several 'fitness' areas including emotional, social, family and spiritual. Follow-up training then varies depending on each soldier's individual score. The program's primary objective is to encourage recruits to espouse an optimistic outlook and view obstacles or challenges as opportunities rather than setbacks.

Results

Gauging an army's mental resilience is not as clear cut as measuring its tactical aptitude, equipment readiness or logistical stores. Most examples of such resilience have emanated from anecdotal accounts or evidence based on questionable cause and effect parameters. The very definition of mental resilience lacks consensus which makes testing it with any scientific rigor susceptible to conceptual confusion, inconsistency and ambiguity.

How then do you test the current measures? Graduation rates and performance from initial training establishments have been the golden standard. The results originating from Kapooka after the first year of implementation were astounding. Comparing the six month course prior to the introduction of resilience training to the one following netted the following results: '51% reduction in the number of psychological referrals, a 30% decrease in the overall discharge rate and a 33% decrease in discharges on psychological grounds⁷. The trend continued with the next course producing similar results.

On the surface, this data makes the BattleSMART program seem infallible; however other changes were concurrently made at Kapooka during the

same period. The most vital being that instructors were now permitted to deal with emotionally distressed recruits at the platoon level without immediately referring them to a psych. This approach allowed instructors to intervene prior to recruits developing a complete aversion to the military life and deciding to quit. Unfortunately, it is impossible to quantify what percentage of success should be attributed to the BattleSMART program and what percentage belongs to the intervening instructors. Though, giving the program all the praise is comparable to giving a rooster credit for the sunrise.

The most vital being that instructors were now permitted to deal with emotionally distressed recruits at the platoon level without immediately referring them to a psych.

It is also instructive to note that a resilience training program delivered by PowerPoint is likely to be absorbed with the same rigor and tenacity as everything else delivered by PowerPoint, that being like water on a rain jacket. How many times have audiences been guilty of allowing their eyes to glaze over on slide 73 of a 120 slide presentation? Asking a 17 to 22 year old recruit who is experiencing sensory overload, stressing out about their next timing and likely worrying about their girlfriend back home (possibly Ex by now) may not be what Bill Gates envisioned as the optimal conditions for his slide presentation program.

This leads to the question of BattleSMART's usefulness. Take for instance the results from a study conducted on the use of BattleSMART in conjunction with Adventure Training. Individuals were given questionnaires prior to the commencement of the course and despite having had no exposure to the resilience training program:

'Participants felt knowledgeable about the key learning objectives of BattleSMART. In particular, the majority of respondents (76.1%) agreed or strongly agreed with statements indicating that they exercised cognitive coping skills. However, the respondents were less certain about control of arousal; just over half of the respondents (52.4%) agreed or strongly agreed that they could control their arousal⁸.'

The course members were then split into two groups with one receiving the BattleSMART training (intervention group) and one not (control

group). The objective was to see what difference the program had on an individual's ability to handle stressful situations. The study concluded that there was little evidence that BattleSMART 'had an effect on confidence in coping with stress on course, as indicated by no difference between the control and intervention group at the end of the course⁹'. However there was evidence between the successful completion of the UATL course and a boost in confidence during subsequent stressful situations. This backs up the theory that being exposed to stress can affect a person's confidence in coping with stress. In fact:

"there are many case studies that support the theory that the value of stress inoculation is not just inoculation against a specific stressor. There seems to be a kind of 'stress immune system,' which permits you to get better and better at adapting to new stresses¹⁰."

The results from the LASER investigation of the pre-enlistment data have indicated that general enlistees and officer appointees have a 'very good mental health baseline, (which includes) high levels of psychological resilience (>93%) and low levels of psychological distress.' (Joint Health Command n.d.) These results support the current selection process; however do not necessarily equate to combat effectiveness. Especially considering that the results were solely based on self reporting from individuals trying to be accepted into an organisation and therefore had a vested interest in appearing to be mentally sound. The study will continue to monitor members' mental health at enlistment, at the end of initial training, at the end of their first year of service and at the end of their first five years of service as part of the ADF's Mental Health and Wellbeing Plan.

This backs up the theory that being exposed to stress can affect a person's confidence in coping with stress.

A recent study funded by Army Research Australia and conducted by Southern Cross and Griffith Universities placed further doubt on the potency of the current measures. The study surveyed more than 95 soldiers and 21 supervisors from a cross section of the Army. The findings concluded that most Australian soldiers do not have the high level of mental resilience needed to deal with combat. Southern Cross University's Professor Yvonne Brunetto said '80 % had some level of resilience to cope with the stresses of combat and, of them, less

than a handful were deemed to have a high level of resilience¹¹. In this study the soldiers' "psychological capital" was gauged by their self-confidence, optimism, hope and resilience to continue a task despite problems.

The findings concluded that most Australian soldiers do not have the high level of mental resilience needed to deal with combat.

The study is worthy of attention as it was performed by two reputable universities with no presumable reason for bias. However, such a profound conclusion requires transparency regarding how the data was collected and evaluated, such as an example of the questionnaire or other specific testing the soldiers were subjected to. This was not provided by the author or the Universities when contacted.

Many psychologists agree with the University study's prognosis and are not thrilled with strategies that rely so heavily on optimism. A significant number have dismissed current measures into the bin associated with the 'power of positive thinking'. The thought process of 'this will be over quickly; it's just this one situation and I can do something about it' does not apply to all circumstances. As one psychologist put it, "It's not going to hold up. It's psychology light. Positive psychology techniques can't counter the profound loss, grief, fury and disorientation that combat can bring¹²." Many believe the solution may lie in identifying individuals with low mental and physical fitness to begin with.

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This thought process is backed up by an American study conducted on "6,000 soldiers from 2002 to 2006 revealed that three hundred and fifty, by the end, had come down with post-traumatic stress disorder. Of those 350, 58 % of the people who come down with it were in the bottom 15 % to begin with for mental and physical fitness¹³." This adds credence to the argument that individuals deemed to be more susceptible to mental issues should be excluded from certain high-risk, high-exposure military roles.

The final results are that at present, there is not conclusive evidence suggesting that an individual's

psychological resilience can be significantly increased by programs such as BattleSMART. Nor is there proof that an individual's 'mental toughness' fluctuates over time. Adding to this disenchanting perspective is the tendency for members directly involved to see 'measurable evidence' of success in data that may not or may not fit a cause and effect model. The difficulty comes down to quantifying a mental attribute in something that is akin to measuring one's capacity for joy, fear, love or hate.

Alternatives

The benefits of providing resilience training are tangible, as long as it is carried out effectively. Approaches such as BattleSMART may not be the best method as it does not provide individuals with a personal experience that they can draw from later in times of need. Below are three alternatives, one that attempts to identify potential liabilities prior to entry and two that are aimed at increasing mental toughness through a better knowledge base; regarding how one's body reacts and increased fidelity in training.

The benefits of providing resilience training are tangible, as long as it is carried out effectively.

The first proposal involves improving initial screening techniques. Subject any potential general enlistee or officer appointee to a robust pre-enlistment test. This would incorporate two to three days of stressful tasks combined with sleep deprivation while operating in small teams under revolving leadership. Psychologists would be on site to assess applicants throughout this testing. An example set of characteristics each applicant would be assessed on could include adaptability, physical robustness, conscientiousness, mental resiliency and moral courage. Tasks and scenarios would be developed to provide the opportunity for such traits to be exhibited (i.e. shortage of food, changing leadership mid task, having a staff member planted within the group 'go jack') Grading could be on a 1-10 scale with no less than the average of three qualified assessors producing a score. While this would add time and expense to the recruitment process, it would also save time and resources in the long term by choosing the right personnel initially and identifying individuals for the career streams they are most suited for.

The second proposal suggests increasing member's knowledge of likely stressors such as extremes of

heat and cold, sleep deprivation, lack of a nutritious diet and sustained exertion. In conjunction with physiological responses, psychological responses will be examined. Impacts such as auditory exclusions, tunnel vision and paralysis must be explained in detail so that an individual knows what to expect and what actions to take. This would best be delivered in a classroom setting with experts on hand to explain how the body will likely react. Being able to recognise symptoms is in itself a coping technique as it provides a sense of control.

Unfortunately, the Masurian Army's propensity to place 2-3 lightly armed combatants on top of a hill with a long history of being overrun may be doing the Australian Army a disservice.

Finally, the level of realism in training must be examined. A famous depiction of the Roman Army at its peak stated that: "It would not be far from the truth to call their drills bloodless battles, and their battles bloody drills¹⁴." This duplication of the actual event prepared soldiers mentally for the hardships to come. Unfortunately, the Masurian Army's propensity to place 2-3 lightly armed combatants on top of a hill with a long history of being overrun may be doing the Australian Army a disservice.

To remedy this, the threat of penalty for poor drills or lack tactical prowess must become real. Army wide use of simunition would provide members with immediate feedback regarding the use of inappropriate firing positions and questionable leopard crawling technique. Training that places personnel under realistic stress will take some of the surprise out of the real event. It will also raise confidence levels, which is an important cognitive element of stress inoculation. This perception of capability in the face of adverse circumstances will act to reduce an individual's overall stress when the time comes to do it for real.

Also more diverse and authentic training, involving such things as realistic causality mock ups (much like ones used on the force prep combat first aider courses), proper actors brought in to play key roles within scenarios (leadership engagements, hostages, captured enemy personnel, etc.) and extremely arduous POW-like camps, set up and ready to accept any member captured or 'killed' on exercise. Finally, open ended scenarios for large scale exercises without the intelligence 'leaks' that

often give blue force a marked advantage. As Rommel eloquently put it; "First class training is the best form of welfare for the troops ... the more you sweat in training, the less you bleed in battle".

Conclusion

This essay has reviewed the Australian Army's present approach to resilience training and has concluded that its effort towards developing a program based on clinical psychology has a tangible benefit; however, not to the extent advertised. The ability to skew results originating from training establishments has allowed a program consisting of three hours of PowerPoint and complementary videos to be hailed as the definitive answer to the mental resilience riddle. The trade off between cost and ease of delivery verses effectiveness must be examined as the current solution may satisfy the former at the expense of the latter. No doubt a comprehensive, evidence-based resilience program deliverable in lecture format sounds great in theory. Unfortunately, mental resilience does not seem to be an attribute that can be bottled or trained with any degree of certainty. Rather it is something intangible that is acquired by overcoming hardship and leveraging against that experience to protect against future unknowns.

The ability to skew results originating from training establishments has allowed a program consisting of three hours of PowerPoint and complementary videos to be hailed as the definitive answer to the mental resilience riddle.

Units that require a heightened level of mental toughness guarantee they obtain it through extremely arduous screening methods. This is not to propose that every career stream should be subjected to the rigors of a selection process, but rather to recognise that the cohesiveness and effectiveness of a unit is determined by how strong and mentally fit the soldiers within it are. By conducting more thorough testing the army could possibly identify which individuals are suitable for certain career streams and which are liabilities. While it is impossible to simulate the stress of facing sustained physical risk over a period of days it is possible to push people to their limits, see how they react and make informed decisions based on that appraisal.

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CA David Morrison retires after 36 years of service

ABC News Updated 15 May 2015, 3:44pm

There has been a changing of the guard at the Australian Army, with outgoing Chief of Army, Lieutenant General David Morrison today handing over command to Lieutenant General Angus Campbell at a parade in Canberra. There was plenty of pomp and ceremony at the Russell Offices this morning to farewell Lieutenant General Morrison, who is retiring after 36 years of military service.

After four years as the Army's chief, Lieutenant General Morrison passed command to Lieutenant General Campbell, who was most notably in charge of the Government's Operation Sovereign Borders.

During the ceremony the Deputy Chief of Army, Major General Rick Burr, paid tribute to Lieutenant General Morrison's ongoing fight against sexism in the army.

"General Morrison's leadership in cultural reform in particular is world renowned," Major General Burr said. "Fundamentally helping our Army become more inclusive, cohesive, capable and reliable. Our people, and in particular our women, have never had such opportunity to realise their potential and, as a result, for the Army to realise its full potential."

Lieutenant General Morrison was gifted a framed Chief of Army's flag, which flew at Army Headquarters during his tenure.

In his farewell speech Lieutenant General Morrison acknowledged his father who was his "greatest role model" in life, and thanked those who had supported him throughout his service.

"I leave with very few regrets and a deep well of pride in the men and woman who I have been honoured to work with over 36 years," Lieutenant General Morrison said.

"Four years ago I became your Chief and in a brief speech to mark that occasion I made one simple promise ... I said 'you have my all, you can count on my commitment to put service before self'.

"It is for others to judge my success or failure in achieving what I undertook to do, but I know, because of the work and inspiration of the officers and soldiers of today's Army, that Lieutenant General Campbell will begin his tenure with levels of capability at their highest in our history."

During his address Lieutenant General Morrison also honoured his successor.

"As I hand the stewardship of Army to Angus Campbell, there is no-one more capable to take charge than he," he said.

In his final words as Army Chief, Lieutenant General Morrison recited the Army's contract to Australia. "I am an Australian soldier - always. Duty first, good soldiering. Goodbye," Lieutenant General Morrison said.



AUSTRALIAN ARMY CAMPAIGNS SERIES

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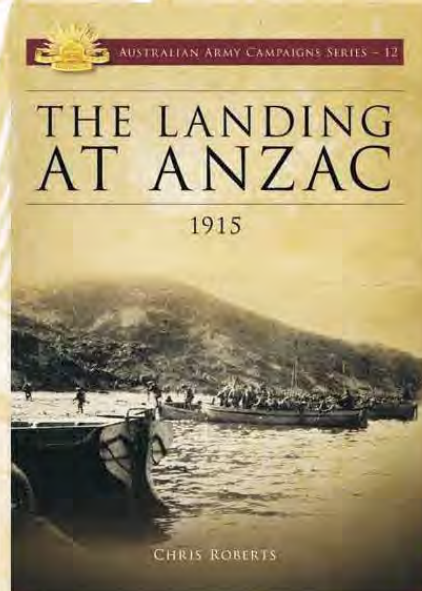
The Landing at Anzac, 1915 challenges many of the cherished myths of the most celebrated battle in Australian and New Zealand history — myths that have endured for almost a century. Told from both the Anzac and Turkish perspectives, this meticulously researched account questions several of the claims of Charles Bean's magisterial and much-quoted Australian official history and presents a fresh examination of the evidence from a range of participants.

The Landing at Anzac, 1915 reaches a carefully argued conclusion in which Roberts draws together the threads of his analysis delivering some startling findings. But the author's interest extends beyond the simple debunking of hallowed myths, and he produces a number of lessons for the armies of today. This is a book that pulls the Gallipoli campaign into the modern era and provides a compelling argument for its continuing relevance. In short, today's armies must never forget the lessons of Gallipoli.

About the Author

Brigadier Chris Roberts AM, CSC (Rtd) spent 35 years in the Australian Army, including operational service in South Vietnam. More senior appointments included Commanding Officer The SAS Regiment, Commander Special Forces, Director General Corporate Planning - Army and Commander Northern Command. Since retiring he has worked as a volunteer in the Military History Section of the Australian War Memorial. He is a graduate of the Royal Military College, Duntroon; the University of Western Australia (BA Honours in

History); the Army Staff College; the United States Armed Forces Staff College; and the Australian College of Defence and Strategic Studies.



Key Selling Points:

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- This book will be released with *The Ottoman Defence against the Anzac Landing: 25 April 1915*, which tells the Ottoman's side of the battle. This is a first in Australia - to have two titles; one outlining the enemies position and the other the Australian position.
- Advertising through military trade publications nationally including Army Newspaper.
- Reviews through internal Defence publications.

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AUSTRALIAN ARMY CAMPAIGNS SERIES – 16

THE OTTOMAN DEFENCE AGAINST THE ANZAC LANDING

MESUT UYAR

The landing at Gallipoli on 25 April 1915 represents a defining moment, not only for Australia and New Zealand, but also for Turkey. However a detailed account of the landing from the Turkish perspective has yet to be published in English despite the 100 years that has elapsed since the first ANZACs scrambled ashore. Descriptions of the Ottoman forces such as the composition of units, the men who commanded them, their weapons, capabilities and reactions to the ANZAC invasion have generally remained undocumented or described in piecemeal fashion based on secondary sources. The lack of a Turkish perspective has made it almost impossible to construct a balanced account of the events of that fateful April day.

The Ottoman Defence against the Anzac Landing: 25 April 1915 seeks to redress this imbalance, portraying the Ottoman experience based on previously unpublished Ottoman and Turkish sources. This meticulously researched volume describes the Ottoman Army in fascinating detail from its order of battle, unit structure and composition, training and doctrine to the weapons used against the ANZACs. Using Ottoman military documents, regimental war diaries, personal accounts and memoirs, author Mesut Uyar describes the unfolding campaign, unravelling its complexity and resolving many of the questions that have dogged accounts for a century. This valuable chronicle will enhance readers' understanding of the Ottoman war machine, its strengths and weaknesses and why it proved so successful in containing the Allied invasion. Detailed maps and photographs published for the first time add clarity and portray many of the men the ANZACs referred to with grudging respect as 'Johnny Turk'.

About the Author

Mesut Uyar graduated from the Turkish Military Academy in 1991, later completing an MA in politics and a PhD in international relations at Istanbul University. During his military career he served as a platoon leader and company and battalion commander in various infantry units, completing several tours as a United Nations military observer in Georgia and as a staff officer in Afghanistan. He was appointed assistant professor of international relations at the Turkish Military Academy where he served for ten years. He was also curator of the Military Academy Archive and Museum Division for five years, during which time he began his research on Ottoman military history. He is currently associate professor of Ottoman military history at the University of New South Wales, Canberra.



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Around the Regiment

Exercise Talisman Sabre 15

*Captain Pat Benson
Battery Captain 105 Battery*

Exercise Talisman Sabre 15 was a chance for 1 Regt RAA, and in my case 105 Battery to test their Tactical Techniques and Procedures (TTPs) against a strong force element in 3 Brigade. The exercise saw the 105 Battery guns deployed both in Battery Tight and Section Dispersed formations, with the three Joint Fire Teams (JFTs) supporting the three Coys of 6 Battalion Royal Australian Regiment (6 RAR), the now online Ready Battle Group (RBG). The exercise was an excellent opportunity for the guns to practice their static and moving local defence, while shooting in support of numerous 7 Brigade force elements. The JFTs conducted numerous clearance and security operations with 6 RAR, most notable being the clearances of Raspberry Creek and the Palmers Ridge complex.

The CA was given a demonstration of the guns in action and the conduct of a mission, as well as command post procedures. He took particular interest in the conduct of local defence and was impressed with the camaraderie and esprit de corps shown by the soldiers and JNCOs of the gun line.

The exercise began with 105 Battery being deployed into a section dispersed position to support the AMO of US troops into Elanora, before follow on actions to provide a block in vicinity of Raspberry Vale. Whilst conducting these

operations, the JFTs were moving with 6 RAR to aid the dismounted clearance of Raspberry Creek (UOTF). This clearance was supported by 'A' Battery's guns, Hawk CAS aircraft as well as Tiger ARH providing Close Combat Attack (CCA) throughout the clearance demonstrating an impressive show of joint fires, leading to a successful clearance of the township.

Whilst in this position 105 Battery's guns were visited by the Chief of Army (CA) Lieutenant General Angus Campbell, DSC, AM. The CA was given a demonstration of the guns in action and the conduct of a mission, as well as command post procedures. He took particular interest in the conduct of local defence and was impressed with the camaraderie and esprit de corps shown by the soldiers and JNCOs of the gun line. After spending approximately one hour speaking with the soldiers he moved away to visit other units, allowing the gun line to return to its local defence routine.

After the successful clearance of Raspberry Creek the 105 Battery guns moved north along Lemon Tree Track into another section dispersed position to provide fire support to 6 RAR who were tasked with clearing the route. This phase posed the challenge of hiding the guns whilst very close to the eastern FLOT of the Brigade. This was conducted successfully with two guns being hidden on a LZ under large tents with a PMV-A parked beside it, simulating a medical facility, while the other two guns were in a hidden position south of the LZ. Keeping the guns hidden in this fashion allowed the provision of fire support leading to the successful clearance of Lemon Tree Track.

Next 7 Brigade focused its main effort on the western approach to Williamson Airfield, moving up the North-South Track towards Palmers Ridge. It was here that the provision of joint fires became critical in the clearance of the Palmers Ridge complex. 105 Battery's guns had moved into several Battery Tight and Section Dispersed positions for the clearance towards Palmers Ridge, culminating

in a section dispersed position to aid 6 RAR's clearance of the Eastern approaches. One of 105 Battery's JFTs, C/S 31 had been moved into an OP overlooking the Palmers Ridge Complex and was integral to the Brigade for the provision of ISR prior to the clearance operation. This JFT managed to provide excellent updates on enemy dispositions, allowing 7 Brigade to have a good idea of what they were up against for the clearance. During the clearance this JFT also provided a highly important retransmission for the BC and JFTs to the guns and BG JFECC, allowing the flow of information to be maintained throughout. 105 Battery's two other JFTs were co-located with their Company's for the clearance and again used guns, Hawk and Tiger ARH throughout the battle to great effect.

The Battery then moved to a position further to the north of Palmers Ridge to support the clearance of the 3 Brigade MDP, which only occurred for a short duration with 'A' Battery being the main provider of fire support for the clearance. For the gun line, the exercise was a great opportunity as the constant moves allowed the guns to test their skills whilst moving, but also in a defensive posture against an armoured enemy. The JFTs also took a lot out of the exercise with the provision of fire support being a large contributing factor to the success of the numerous clearance operations. After a good showing on this exercise the Battery and Regiment are now prepared and operating in the ready cycle to support operations throughout the Pacific region and world.

Exercise Highside

*Captain Andrew Seymour
1st Regiment RAA*

Exercise Highside (Ex Highside) occurred over the period 11 - 23 May 2015 in Shoal Water Bay Training Area (SWBTA). The exercise as a whole was a Regimental activity, however due to Ready Battle Group (RBG) requirements; 105 Battery was partaking in Exercise War Fighter. Further, due to deployments 104 and 'A' Battery had formed a composite Battery, forming A/104 composite Battery, which meant that the entirety of assets were under the control of BC 'A' Bty Major M Hodda. A/104 composite Battery's round count totalled 1776, which was combined with 7 days of (at a minimum) two a day F-18 and ARH sorties.

The amount of bombs that the Battery Commander had to expend was to the delight of his Joint Fire Team's (JFTs), Command Posts and Gun Line as it meant minimal moving with the focus being on technical shooting. Whilst the majority of the Close Air Support (CAS) and Rotary Wing (RW) controls went to recertification of the unit JTACs, most A/104 composite Battery's JFO qualified personnel were able to get a live control of both F-18s and ARH. Further development of JFT and JTAC integration occurred through Time on Target (ToT) Suppression of Enemy Air Defence (SEAD) which enhanced the outcomes of the Exercise.

*... an 'experimentation' of rates
above the sustained rate of fire
which resulted in two equipments
barrel's exceeding minimum firing
temperatures ...*

All A/104 Battery JFTs were able to conduct a Forward Observer's Quick Fire Plan with real rates (no executive rates to conserve ammunition) which culminated in a Battery Commander's Fire Plan with 100 rounds per equipment with a duration of roughly 45 minutes. During the Battery Commander's Fire Plan all elements of the Battery were put through their paces with an 'experimentation' of rates above the sustained rate of fire which resulted in two equipments barrel's exceeding minimum firing temperatures; which meant they had to cool down before being brought back into the Fire Plan.

Overall, it was an excellent exercise with all elements from the Hill to the Gun Line proving they were ready for the upcoming CATA and Hamel 15.

DATE CLAIMER

**RAA
LIAISON LETTER
Autumn 2016**

Next Edition Contribution Deadline

Friday 12th February 2016

Australian Army Skill at Arms Meeting 2015

A Gunner's Perspective

Steve Wilson
HR Services Branch
Townsville



The 4th Regiment's Shooting Team had its best year ever at the Australian Army Skill at Arms Meeting 2015 (AASAM 15). The competition lasted for over two weeks and included over 30 ADF units and 17 international teams. This year was unique in that it was the first year all matches were to be

conducted in 15 kg of TBAS/MCBAS and helmet. This reflects the Chief of Army's focus on combat shooting. The difference was reflected in the fact that Australia won the competition after many years. In a sign of things to come, this year's Close Quarter Engagement Match was carried out with a robotic opposing force that attacks, takes cover and withdraws.

A summary of results at the individual, team and international level were: Ten gold, nine silver and three bronze.



Notable achievements were:

Bombardier Chad Grainger and Gunner Nathan Alexander were selected to compete in the one-off Anzac Team in the international comp and won several medals at this level.

Bombardier Grainger (5th) and Gunner Alexander (14th) made the Top 20 and get to wear the Top 20 badge (crossed rifles with laurel wreath) for life. In over 30 years of service I have never seen gunners awarded this. A rare achievement indeed!

In addition to the two members above, Gunners Matt Mounsey and Rick Willcox as well as Bombardier Nick Latham have been selected for the Australian International Marksmanship Squad (AIMS). This is a unique honour and they may have the opportunity to be selected for the Australian Team to attend the UK's Bisley competition next year.

The Regiment's A and B team took out the Gold, Silver combo in the Service Rifle Falling Plate.



International Section Match. Bombardier Grainger and Gunner Alexander hump MAG58s for the Anzac team as they finish the 2.4 km run and commence the 400 - 50 m rundown. The Anzac's won Gold in this event and second overall in the international medal count.



Gunner Willcox and Gunner Mounsey won the inaugural Close Quarter Engagement Match involving the Marathon robotic targets. These are the latest thing in combat shooting.

Gunner Mounsey won Silver at the Military Biathlon, a timed 4km run punctuated by two pistol and two rifle practices, wearing the 15 kg of kit on top of his weapons and ammo. An exceptional achievement on his first attendance at AASAM.

This is a unique honour and they may have the opportunity to be selected for the Australian Team to attend the UK's Bisley competition next year.

On his 21st birthday Gunner Zach Jones backfilled an injured 3 RAR member on the Section Match and earned a Silver medal and much gratitude from Old Faithful.

I urge anyone who is passionate about soldiering to try to attend AASAM. It is a career highlight of many soldiers who attend as they conduct shooting activities not possible at unit level as well as interact with soldiers from several other countries.

Exercise Koolendong & Talisman Sabre

*Lieutenant Tom Jordan
8th/12th Regiment RAA*

Supporting complex live fire air assaults for the Marine Rotational Force Darwin (MRF-D) became a normal day at work for the gunners and logisticians of 8th/12th Regiment during the period 17th June-18th July this year. Drawn from four of the five batteries across the Regiment, and centred on the heavy hitting gun group from 101st Battery, upwards of 60 officers and soldiers from the Regiment participated in Exercise Koolendong and Talisman Sabre 2015 at Bradshaw Field Training Area. 101st Battery provided two M777 Howitzers and a command post, 102nd (Coral) Battery provided the JFECC, 103rd Battery worked the sharp end with a Joint Fire Team (JFT), whilst CSS Battery kept the contingent ticking over with vital transport, Q and technical support.

Upon the commencement of Exercise Koolendong the 101 Battery gunline was co-located with six M777's from Mike Bty, 3/11 Marines (known as call sign 'Mayhem'). This provided an eight gun Offensive Support capability for the initial fire support coordination exercise (FSCEX), five separate Combat Team Air Assault Courses and the culminating Battalion Air Assault Course.

The air assaults were conducted onto the objectives with indirect fire being called in by USMC FISTs (Fire Support Teams), Snipers, Joint Terminal Attack Controllers (JTACs) and as well as ADF JFTs and JTACs. The Australian guns were primarily utilised to treat depth targets in the form of suppression of enemy air defence (SEAD) missions. This was to assist the safe landing of infantry onto the objectives via USMC CH53E Super Stallions. Mike Battery suppressed the close targets such as simulated enemy machine guns and armoured vehicles to assist the infantry in closing on the objective whilst minimising casualties.

The provision of indirect fires for both USMC and ADF personnel from the same location provided an excellent opportunity for training in other joint activities such as patrolling, occupation of standing patrols, care of the battle casualty and exposure to

the different weapons systems in service for the different countries. This quickly took up any time available between firing and was greatly beneficial to both parties as an opportunity to identify differences in the conduct of activities whilst simultaneously developing Tactics, Techniques and Procedures (TTPs) to increase interoperability.

The USMC members were quite envious of the Protected Mobility Vehicle (PMV) Command variant and the setup of our command post, especially regarding the deployment speed when coming into action and of course the air-conditioning!

During respites in battle command post exercise training was conducted to allow exchanges between ADF Artillery Command System Operators and the USMC AFATDS operators within the 101st Battery Command Post and the USMC Fire Directions Centre. The early exposure to the upgraded AFATDS being utilised by Mike Battery, that will be in service with 8th/12th Regiment soon, was an opportunity that wasn't wasted. The USMC members were quite envious of the Protected Mobility Vehicle (PMV) Command variant and the setup of our command post, especially regarding the deployment speed when coming into action and of course the air-conditioning!

The availability of the CH53 capability from the Marines gave rise to Operation Thunder Hammer - the culminating activity for the contingent. This being the deployment 20 km via helicopter to a gun position on top of an escarpment 250 m above the Angallari Valley. This enabled fires in support of an objective out to the west of the previous AO. Operation Thunder Hammer was the result of several weeks of preparatory training during lulls in firing including airmobile deployments and testing of 'man packable' communications over large distances without access to retransmission capability.

The culminating activity was a huge success with 101st Battery providing vital SEAD from a gun position which was inaccessible to vehicles. This was conducted in response to the call for fire from the 103rd Battery JFT and coordinated through the 102nd (Coral) Battery JFECC to enable two USMC infantry companies to land safely to then go onto clear the final objective for the MRF-Ds ultimate hit out during Exercise Talisman Sabre 2015.

Northern Territory Trackers Course

*Captain Rory Reynolds & Sergeant Peter McDonald
8th/12th Regiment RAA*

The NT Police Trackers course has been one of the highlights for a select few members of 8th/12th Regiment for the year of 2015. Building on multiple interactions with members of the Northern Territory Police Tactical Response Group (TRG), they extended an invite for select members to take part in their annual course.



The TRG offered three positions to 8th/12th Regiment. The course represented an enormous training opportunity and gave soldiers exposure to a unique skill set. Three Joint Fire Team (JFT) soldiers from across the Regiment were selected for the course so they could develop tangible skills to pass on to their colleagues. The selected soldiers were: Lance Bombardier Dowsing from 101st Battery, Gunner Conroy-Bagby from 102nd (Coral) Battery and Gunner McGuckin of 103rd Battery.

"Working with an external agency to Defence, was a worthwhile experience. They offered many different perspectives that helped build on the foundation provided through Defence training," GNR McGuckin said.

The course started hard and fast with an introduction to the history, purpose and types of tracking before moving onto more complex topics like types of sign and determining the age of sign. For the practical exercise the members were required to track and follow up to three persons over varying terrain out to one kilometre. The soldiers were also required to conduct detailed

observation lanes, focussing on exact details of sighted items.

Lance Bombardier Dowsing felt this 'hands' on approach was a productive way for everyone to learn. "I never realised how much information can be given away from a previously occupied position. The slightest indication such as worn tracks and fighting positions can help us determine numbers and disposition."

The students were taught to use deductive reasoning from the sign to develop an enemy picture, and obtain information on the enemy's whereabouts.

One of the main focuses of the course was site investigation. The students were taught to use deductive reasoning from the sign to develop an enemy picture, and obtain information on the enemy's whereabouts. There was also a strong focus on section-level formations and local security whilst tracking. The JFT soldiers were able to share their experiences in patrolling and took the lead with sub-section formations and field signals.

The course culminated in a two day tracking exercise. Beginning at the Darwin Detention Centre, the scenario consisted of three people escaping and fleeing into the surrounding bush land. The soldiers tracked them for the entire first day and captured all three escapees on day two.

Lance Bombardier Dowsing felt the exercise was overall extremely positive. "The Police were satisfied with the outcome and would like to see future military personnel on the course, possibly even instructing."



Ground Lasing with ARH: Hellfire Engagement Utilising TYR

*Captain ME Manning
Joint Fires Team Commander
103rd Battery, 8th/12th Regiment RAA*

Recently 103rd Battery, 8th/12th Regiment provided support to the force generation and certification of the Aviation Battle Group based on 1st Aviation Regiment during Exercise Vigilant Scimitar (EX VS). EX VS provided an opportunity for Joint Fires Observers (JFO) and Joint Terminal Attack Controllers (JTAC) within the 103rd Battery Joint Fires Team (JFT) to conduct live fire Close Combat Attacks with ARH, utilising a Ground Laser Target Designator (GLTD) for the engagement of AGM-114 Hellfire Missiles within Delamere Air Weapons Range. This was the first time this engagement has been occurred within the RAA or the AAVN.



The TYR Laser Target Designator and Imager was the 'in-service' GLTD utilised during the practice. It came into service as a part of the Digital Terminal Control System (DTCS) under the Land 17 Project. The TYR was introduced into service to provide Artillery Observers with a man portable device capable of designating targets for engagement from Fixed Wing (FW) or Rotary Wing (RW) aircraft with laser guided munitions. The TYR uses a pulse repetition frequency to guide the laser munitions to the designated laser spot, allowing accurate engagements and reducing collateral damage. Artillery Observers are introduced to the TYR

during their JFO course but there are limited opportunities to utilise the TYR for live fire engagement. As a result, it has been difficult to see first hand the capability and effectiveness of the designator.

Each mode of engagement proved extremely accurate with both missiles hitting their intended target.

Remote engagements were utilised during EX VS to allow training benefit to the JFOs and JFTs involved. Remote engagements require the aircraft to serve as a launch platform, providing a missile for another aircraft or ground observer with a laser designator, to guide the missile to its intended target. In addition two modes of delivery were utilised; Lock on Before Launch (LOBL) and Lock on After Launch (LOAL).

The LOBL mode of delivery assures the aircrew that the missile has already positively locked on to the target prior to the launch from the aircraft, thereby reducing the possibility of a lost or uncontrolled missile. Target correlation is important in this delivery mode. The observer needs to be confident that the pilot has correctly identified the target to be engaged. This need to be established through the use of Close Air Support (CAS) brevity terms as well as a brief target description. Only when the observer is confident the pilot has identified the target can he clear the aircraft for engagement.

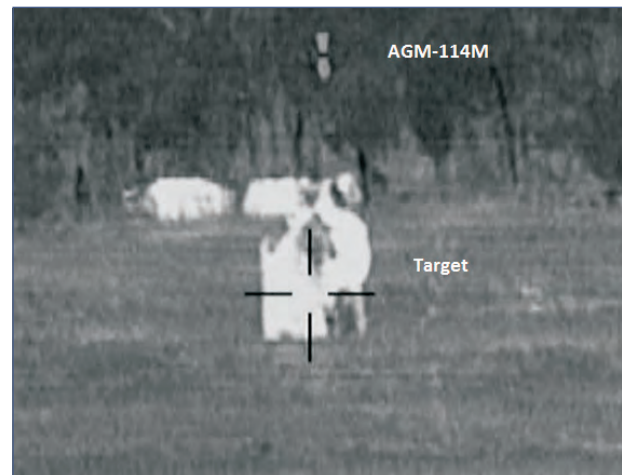
The LOAL delivery mode allows the missile to acquire the laser energy as it travels towards the target. This places an increased responsibility on the observer to ensure that the TYR is correctly laid on the target, and the target is lased at the exact time the pilot orders.

This live fire practice, despite being a success, was not without teething issues.

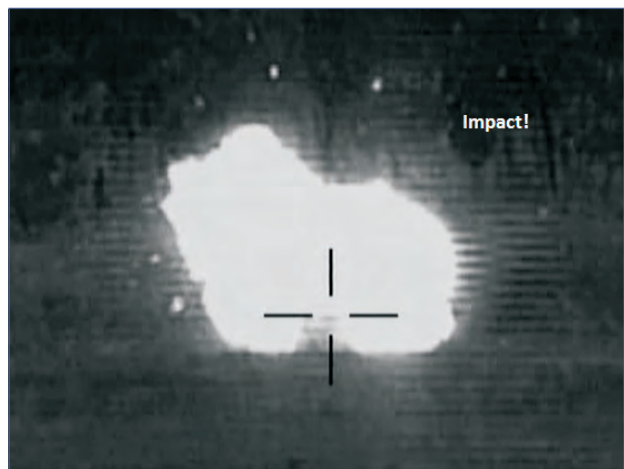
Each mode of engagement proved extremely accurate with both missiles hitting their intended target. The ARH pilots were able to accurately pick up the laser energy from the ground lase without difficulty. The pilots were impressed with the way the Hellfire missile was able to guide itself onto the target using the laser energy during the LOAL method.

This live fire practice, despite being a success, was not without teething issues. As a result the following considerations should be given to any

laser guided munitions engagements employing a ground lase.



Safety is a major concern when employing a GLTD and as such range restrictions heavily dictated the limitations of the live fire engagement. Locations of observation posts and targets, final attack heading restrictions and Laser Target Line limits are dictated prior and these restrict the flexibility allowed to the JFO, JTAC and pilot. A detailed range reconnaissance is required to determine these limitations and assist in the planning of the practice.



JTAC and JFO skills, like most skills, fade if not regularly rehearsed. The majority of these skills are developed within the Indirect and Forward Air Control Trainer (IFACT). Regimental exercises rarely incorporate live CAS engagements with FW or RW aircraft employing laser guided munitions to allow the opportunity to engage utilising the TYR to designate the target. Observers should ensure that all JFO and JTAC skills are fully rehearsed and developed prior to live engagements. This includes hands on time with the TYR and associated equipment.

Access to the bespoke TYR batteries was initially a significant issue. With some detailed engagement with DMO and Rockwell Collins, an alternative power solution was sourced to meet the timeframe of the activity. TYR training kits which included a cable compatible with multiple rechargeable 2590 radio batteries enabled the conduct of the activity in the absence of the standard TYR power source. Sourcing a ready supply of TYR Batteries is recommended for all Artillery Regiments as the movement of dangerous goods at short notice is problematic.

The employment of ground lasing for laser guided munitions has proved to be an accurate and timely method of engaging ground targets. Although training opportunities like these are rare, observers should seek to maintain their laser operations skills in barracks to ensure that they are confident to conduct laser engagements when these fleeting opportunities arise.

First Principles Review

Today the Minister for Defence has released the report of the First Principles Review of Defence. This review provides a professional, considered external view of Defence. The independent review was undertaken by a high level team hand-picked for their experience and expertise:

- Mr David Peever as Chair - former Managing Director of Rio Tinto;
- Mr Jim McDowell - former CEO of BAE Systems Australia;
- Professor Peter Leahy - former Chief of Army;
- Professor Robert Hill - former Minister for Defence; and
- Mr Lindsay Tanner - former Minister for Finance.

The Terms of Reference were broad, covering the entire organisation. The review team has worked comprehensively to produce a serious piece of work.

They received many suggestions, views and advice which they weighed up against the other evidence they received. Out of this they have made their assessment and formed the judgements which underpin the review. They have held a mirror up for us. There are some things we will not like, or which are uncomfortable.

The review team acknowledges our proven record of delivering in the field, on operations, in humanitarian and emergency support roles both nationally and internationally. However, they identified that as an organisation, we currently operate as a loose federation where the individual parts are strongly protective of their turf. They noted that we struggle to be joint or integrated when we need to be. They have recommended that we must position ourselves for the future and become one end-to-end organisation.

We both support the review and want to now get on with the implementation. That is why Defence's senior leaders met today so that we can start the work of One Defence which involves:

- establishing a strong, strategic centre able to provide clear direction, contestability of decision making, along with enhanced organisation control of resources and monitoring of organisational performance;
- building an end-to-end approach to capability development with a robust and tailored investment approval process and a new 'smart buyer' arrangement for the acquisition and sustainment of defence capability;
- improving delivery of corporate and military enabling services with a focus on enterprise-wide integration and customer-centric practice; and
- developing a planned and professional workforce with a strong performance management culture at its core.

It has been agreed that implementation will occur over two years. As the first step, over the next 90 days we will be developing a detailed implementation plan based on the high level plan included in the review.

The report outlines significant changes for the Department and the Government has agreed or agreed in-principle to 75 of the 76 recommendations. The one recommendation which was not agreed is Recommendation 2.17 - DSTO becoming part of the new Capability Acquisition and Sustainment Group.

There were four recommendations agreed in-principle:

- Recommendation 2.10 - increasing the approval thresholds for capability development projects was agreed in principle. The thresholds will be reviewed by the Secretary of Finance and the Secretary of Defence once the new investment approval process is working and has proven itself.
- Recommendation 2.13 - the use of Net Personnel Operating Costs process cease immediately was agreed in principle. This practice will cease once alternative mechanisms for assuring transparency of costs have been proven.
- Recommendation 3.3 - the Government amend the Public Works Act 1969 to set a \$75 million threshold for referring proposed works to the Public Works Committee, and re-consider recent adjustments to the 2015-16 Budget operational rules that run counter to more efficiently managing investment spending. This recommendation will be reconsidered once alternative mechanisms for assuring transparency of costs have been proven.
- Recommendation 3.1 - disposal of parts of the estate - sites will be considered on a case by case basis.

We encourage you to find out about the review. You can find the report of the review at <http://spintranet.defence.gov.au/COO/first-principles> along with fact sheets summarising the report and questions and answers. Please take the time to read these documents and discuss them with your supervisors and colleagues.

The departmental secretariat that supported the review team will be running a series of town hall meetings during April. These will be held in regional locations as well as Canberra and will be open to all staff who are able to attend.

Rest

A Long Time Coming

Colonel Arthur Burke OAM Retd

In the inky darkness of the pre-dawn, the men of the 105th Field Battery quietly climbed into their troop transports at their home in 4th Field Regiment RAA at Wacol, Brisbane. The tailgates shut, the canopies were tied down, engines started up, gears engaged and the convoy moved out of the barracks.

The Army vehicles snaked their way across the city of Brisbane down to the wharves where the aircraft carrier HMAS *Sydney* was steamed up but still moored. The troops debussed, gathered their sea kit and at 0730 hours, battery commander Major Peter Tedder led his battery up the *Sydney's* gang plank.

On 29th April 1965, Prime Minister Menzies announced an Australian infantry battalion with supporting troops would be sent to Vietnam.

At 1100 hours, the HMAS *Sydney* slipped her final moorings and steamed down the Brisbane River to the open sea. There were no streamers thrown or tumultuous cheering from family members, and no weeping wives and mothers as their kin left Australian shores.

This dawn of 14th September 1965 was also the dawn of the Royal Regiment of Australian Artillery's entry to the Vietnam War. 105th Field Battery RAA (Independent) was about to come under command of the 1st Battalion Royal Australian Regiment Group which had preceded it from Sydney on 27th May 1965. The 1 RAR Group was under the operational control of the 173rd US Airborne Brigade, the first American combat troops to arrive in Vietnam.

On 29th April 1965, Prime Minister Menzies announced an Australian infantry battalion with supporting troops would be sent to Vietnam. The 1 RAR Group was deployed by 10th June whilst their direct supporting 161st Field Battery Royal New Zealand Artillery followed and was in action by 17th July. This ANZAC force was under the command of Headquarters Australian Army Force Vietnam but under operational control of the 173rd Brigade.

... Brigadier OD Jackson DSO OBE was present on Sergeant Don McDonald's A Sub when the first round was fired by the Australian artillery in the Vietnam War.

The original elements of the 1 RAR Group consisted of the battalion, an APC troop and the 1st Australian Logistic Supply Company. To provide more balance and depth to the Group, an Australian field battery, troop of engineers, light helicopter reconnaissance troop, signals' detachment and additional logistics personnel were put on 21 days' notice to move from 28th July 1965.

On 28th September 1965, the HMAS *Sydney* dropped anchor two miles off Cap St Jacques and American landing craft ferried the Tigers ashore to Vung Tau. Hercules aircraft then flew the Gunners to Bien Hoa and on 30th September they commenced establishing a battery position in a disused rubber plantation on the perimeter of the huge American base at Bien Hoa.

At 1135 hours on 2nd October, the Commander Australian Army Forces Vietnam, Brigadier OD Jackson DSO OBE was present on Sergeant Don McDonald's A Sub when the first round was fired by the Australian artillery in the Vietnam War.

161st Battery remained in direct support of 1 RAR till 31st December 1965, but alternated with the 105th on airmobile deployments. Until the end of that year, the Tigers were also in general support of American forces throughout South Vietnam. Thus, from 1st January 1966, the 105th Battery's battery commander and forward observation parties provided the communications, liaison and advice to 1 RAR and the 161st went into general support.

The Tigers' last operation with the 173rd Brigade was Hardihood, the advance to and securing of Nui Dat (65 km south-east of Bien Hoa) in Phuoc Tuy Province – the future home of the 1st Australian Task Force, Australia's expanded and self-reliant commitment to the Vietnam War. At 1700 hours on 5th June 1966, 1st Field Regiment RAA opened its regimental command net in Nui Dat. At 1800 hours, both the 105th and 161st Batteries joined the 103rd Field Battery under command of the 1st Field Regiment.

The Cross of Gallantry with Palm Unit Citation, though awarded to the 105th Field Battery is not an enduring award as is the Meritorious Unit Commendation.

For their ground-breaking, exceptionally meritorious achievement and outstanding service during 1965 – 1966, the 1st Battalion, Royal Australian Regiment and its assigned and attached units as part of the 173rd US Airborne Brigade were awarded the United States Meritorious Unit Commendation. This was formally presented on a huge ceremonial parade of 1 RAR in Townsville on 4th July 1991. Since that date, all veterans of the 1965 – 1966 tour of Vietnam and every member when posted to the 105th Battery proudly wear the 'blood patch' MUC on their right breast.

But there was another award made in 1970 by the Republic of Vietnam to the 173rd and its attached and assigned units for their gallant service during 1965 – 1970 – the Cross of Gallantry with Palm Unit Citation.

It took some 25 years for the 1 RAR Group's MUC to be acknowledged by Defence Honours and Awards, but at that time (1991) it was argued that the CGWPUC was from a government which no longer existed so could not be offered to Australians. The 1997 guidelines governing the acceptance and wearing of foreign awards allowed Her Majesty the Queen to grant permission for the formal acceptance and wearing of foreign awards by Australians in extraordinary or unusual circumstances.

In August 2011, Her Majesty the Queen gave an approval which enabled the Governor-General of Australia to make a determination on the wearing of foreign awards in extraordinary or unusual circumstances.

Mr Alan Larsen, a veteran of 1 RAR 1965 – 1966 made a submission to the Honours and Awards

Tribunal in 2011 that, though the government of the Republic of Vietnam no longer existed and the CGWPUC had been accepted by the United States Government on behalf of the 173rd US Airborne Brigade and its attached and assigned units, then this should also mean that the award had been accepted on behalf of the Australians amongst those 'attached and assigned units'.

As the Government of the Republic of Vietnam no longer existed, the Parliamentary Secretary considered these circumstances fell within the 'extraordinary or unusual circumstances' guidelines. As such, the Parliamentary Secretary wrote to the Governor-General recommending that he exercise his authority to accept the Citation. The Governor-General accepted on 17th April 2015. The Ministerial announcement of this award was made on 11th May 2015.

Members of the 105th Field Battery during 1965 – 1966 who believe they are eligible and have confirmed through Defence Honours and Awards (1800 111 321) that they are identified on the nominal roll of 1965 – 1966 should submit an application form to Defence Honours and Awards via their website.

The Cross of Gallantry with Palm Unit Citation, though awarded to the 105th Field Battery is not an enduring award as is the Meritorious Unit Commendation. So, though the battery's plaque, flag and letterhead may reflect the CGWPUC, today's members of the battery will not wear this Citation – only the original 1965 – 1966 veterans of the 105th have this entitlement. The precedent for this situation was the award of the CGWPUC to 8th Battalion, Royal Australian Regiment in 1970.

105th Battery Historian Arthur Burke has been in discussions with the Commanding Officer of 1st Regiment RAA proposing a formal presentation parade for available 1965 – 1966 veterans of 105th Battery. Currently, the planning date is 6th October 2015.

The award of the Republic of Vietnam Cross of Gallantry with Palm Unit Citation has been a long time coming, but it has arrived and will be formally recognised in the near future. This Citation, together with the United States Meritorious Unit Commendation already awarded makes the 105th Battery unique as the only recipient of these awards within the Royal Regiment of Australian Artillery.

Switching Targets

From the School of Artillery to the Royal Military Academy Sandhurst

'Serve to Lead' – Motto of the Royal Military Academy Sandhurst

*Captain Jeremy Satchell
Australian Exchange Officer
Royal Military Academy Sandhurst*

Over the past few years, I have been encouraged by several fellow Gunners to write and contribute thoughts, opinions and experience to whatever audience presented itself. I can think of no better place than this liaison letter to put forward my experience as a Gunner Officer on exchange, and I intend to do this in two parts. The first will illustrate my experiences to date, while the second will provide some insight into the methods the British Army utilise to train their Junior Officers. I trust that you will find this piece of general interest and hope that it will provoke some discussion amongst our Regiment about the ideas of leadership training, professional development and Officer training in particular.

To be the Aussie representative is a privilege and extremely humbling, especially considering the names which are inscribed on the honour board.

My posting to the Royal Military Academy Sandhurst (RMAS) began in November 2014 after a two-year stint at the School of Artillery. This posting order enforced a great deal of humility upon me, as I realised what an honour and responsibility had been laid upon me. Eight months later and the importance of this position has been confirmed, because to serve at Sandhurst is to be part of a prestigious institution, dating back to the early 1800s. To be the Aussie representative is a privilege and extremely humbling, especially considering the names which are inscribed on the honour board. Living up to some individual's exploits will be nigh on impossible!

My posting began with several staff courses in order to familiarise myself with the British Army's methods of training and the ins-and-outs of RMAS. These included all the usual welfare and



New College

administration aspects of working in a training institution, but also focused heavily on promoting the training and development of leadership. An interesting and valuable aspect was the focus on working within an adult learning environment and the role of coaches and mentors. These concepts are widely discussed within the Australian Army, but rarely implemented well. I will provide further insight in Part Two of this essay. The staff courses, coupled with an excellent handover from my predecessor ensured I was well prepared for H-Hour; beginning my role as a Platoon Commander within the Junior term of Commissioning Course 151.

The Sandhurst Group is far more than just the Academy. It encompasses all officer training up to our equivalent of the Majors Courses. These are conducted offsite, but the curriculum and delivery are the responsibility of the Commandant; a two star General. There are also the University Officer Training Corps (UOTC) among other smaller units which are gripped up under the Group. The Academy itself is responsible for the Regular Commissioning Course (CC), Reserve Commissioning Courses and Professionally Qualified Officers Course (PQO). The PQO trains doctors, lawyers, veterinarians etc. The CC, however is the jewel in the crown. It is a 44 week course, broken into three 14 weeks terms and

includes two weeks of Adventure Training which is delivered over leave periods. The three terms are known as Junior, Intermediate and Senior. Like Duntroon, RMA is structured using a Regimental system with six Companies making up each CC. Unlike Duntroon though, each Company contains Officer Cadets of a single intake and is formed on a rotational basis. For example, Gallipoli Company was raised in January and will progress through all three terms before commissioning in December. It may not be raised again for several years.

My role as a Platoon Commander is everything you would expect: leader, manager, mentor, and coach.

I began my position as a Platoon Commander within Gallipoli Company in January 2015. Matched with a Yorkshire Regiment Colour Sergeant, and a Royal Regiment of Scotland CSM, there was certainly a diverse range of accents to greet the cadets as they arrived on 'Ironing Board Sunday'. Parents drove through the immaculately manicured grounds to deliver their children to us, the training team, just like the first day of school. Each Cadet was smartly dressed (finely tailored three piece suits are a must!), and carried a number of suitcases and an ironing board under one arm; hence Ironing Board Sunday! My role as a Platoon Commander is everything you would expect: leader, manager, mentor, and coach. Meeting the Cadets for the first time was both exciting and daunting in that I had no idea of the standard of individual I could expect, nor of the various experiences they would be bringing to the team. Certainly, I was concerned about my ability to be understood with my broad Aussie accent! Thankfully, the Cadets are remarkable individuals, but more on that later.

The quality of Officer Cadet proved to be excellent and they truly shocked me on a daily basis with their ability to absorb the new environment and lessons quickly.

The administration of the Platoon within the barracks proved to be the biggest challenge as all guiding policies and SOPs proved to be fairly loose and at times contradictory. In this respect, mission command was provided and whatever was needed got done in one way or another. I kept my head above water (just) as the new doctrine, standards



Platoon

and policies had to be absorbed quickly. At times, I was learning at the same time as the Cadets, but of course they had no idea of this fact! The first five weeks was everything a Colour Sergeant can hope for as an instructor. A constant 18 hour cycle of drill, ironing, labelling, drill inspections, rifles lessons and more drill took place, with the aim of turning civilian into soldier. The quality of Officer Cadet proved to be excellent and they truly shocked me on a daily basis with their ability to absorb the new environment and lessons quickly. There were the typical British stereotypes you would expect. A polo loving chap in a tailored suit who spoke with a plumb in his mouth, a northerner who was counting his lucky stars in being there, a British Muslim who was frequently mistaken to be an overseas Cadet, an Arab Sheik, and everything in between.

But what struck me most of all was the quality of the person and the life experience the majority already held. The average age is around 23 with 90% being university graduates. I have guys in my Platoon who run their own family charity in Sierra Leone, another who had raised £10 000 cycling from Britain to Budapest and a young chap who had played junior rugby for Great Britain. I had no doubt that I had some high quality individuals to work with over the year. At this time, it also came to light that the previous Commandant's son was attending. There was an obvious buzz, as Major General Marriot was a well respected and loved figure. It was also clear to me that my peers were conscious of the effect this may have on their careers; something which I found very interesting. I had no idea who Major General Marriot was, and when his son was assigned to my Platoon, I made a point of making him one of my very first interviews. He seemed to appreciate that I hadn't a clue about his family, my career was unlikely to be shaped by his retired father and that he would be starting with a clean slate to form his own reputation. To his credit,

he has been a stand out. And his father? Well, he is an absolute gentleman.

... this was the first time I was able to see a large amount of my cadets in leadership roles. Some shone, some laboured, and others plain failed.

The fourteen weeks of Junior term became a blur. Navigations lessons, leadership instruction, command tasks and field exercises. The tactical command tasks proved to be an interesting experience as this was the first time I was able to see a large amount of my cadets in leadership roles. Some shone, some laboured, and others plain failed. It was a good grounding activity and one which allowed me to start to properly mentor the cadets in the development of leadership. The leadership program at RMAS is heavily bent towards the teachings of John Adair, following the BE, KNOW, DO model. I intend to provide more depth to this topic in the second submission. Exercise Longreach also took place in Week 8. This is a long lasting Sandhurst tradition, which sees the Cadets navigate 7 km across the Black Mountains in Wales, carrying 20 kg in section strength with a time limit of 36 hours. This is no small feat considering they only began their careers a short time ago and had limited preparation. Oddly enough, there is no DS presence with them throughout the duration of the march, with the exception of the checkpoints they must visit in order to complete a command task. This is a not only a physical challenge, but one which truly tests teamwork and individual leadership skills. Not all came through unscathed, and many didn't make it but there is no doubt everyone learned something valuable.



Tactical Command Task in the Wish Stream

The field exercises are relatively short, but fast paced and force the Officer Cadets to progress rapidly from Section to Platoon level operations. There is very little time to consolidate teachings and as a result the standard of field craft and minor infantry tactics is questionable and in some cases poor. This has proved to be perplexing to the DS, however the field exercises are very much viewed as vehicles for practicing and developing leadership through the provision of command appointments as opposed to teaching tactics. This is a strong approach, however the balance is less than desirable.

No longer do the Cadets have time to consolidate their military lessons as they must spend a significant amount of time receiving lessons, studying and submitting projects or conducting exams.

The junior term also saw the Officer Cadets begin their studies within the Academic department, known as Faraday Hall. RMAS maintains a large university like department manned by world leading academics in the fields of War Studies (WS), Defence and International Affairs (DIA) and Communication and Applied Behavioural Science (CABS). The wealth of knowledge in this organisation is amazing and the lessons taught are extremely valuable. This intake is the first to begin a Postgraduate course while at RMAS. The lessons have changed little from the past, however have been aligned with Cranfield University to provide a qualification at the end of the effort. This focus however requires sacrifices. No longer do the Cadets have time to consolidate their military lessons as they must spend a significant amount of time receiving lessons, studying and submitting projects or conducting exams. It is now a frustrating blend of what we know as ADFA and RMC-D. In saying this, I have no doubt that they will benefit from their academic studies and that their respective Young Officers course will bring them up to speed with their military skills.

Junior term ended as it began; at a constant sprint. End of term functions, drill, prizes and awards, more drill and the Commissioning Parade for the Senior term Cadets. This is a spectacle in itself, as it is commanded by the Academy Adjutant on horseback and adheres to several long lasting traditions. This includes the mounted Adjutant 'chasing' the Cadets into the Old College Building as

they march off the square for the last time; a tradition whose origins are not quite known, but many good stories abound in attempts to explain! The end of term was somewhat of an anti-climax as all Cadets departed for Adventure Training Courses which are conducted all over the United Kingdom.

... I have been astounded at the focus the British Army places on Adventure Training.

One of my 'extra Regimental appointments' is the Coy Adventure Training Officer. Not as glamorous as it sounds, but I have been astounded at the focus the British Army places on Adventure Training. They maintain several permanent establishments whose sole responsibility lies in the delivery of AT courses and facilitation of expeditions. There is a large variety of AT and a well established system in place which encourages the execution of AT at unit level. I am often staggered at the amount of AT experience my peers have which includes mountain climbing expeditions in Cyprus, diving in Macedonia and skiing in the Scandinavian Countries. This emphasis on AT is seen as key to developing teamwork and leadership throughout the British Forces and has been maintained throughout the high operational tempo period of the last dozen years. I wonder whether our Military will ever see a return to such an attitude?

The intermediate term saw a welcome improvement in the weather as Summer approached. We ventured to Brecon, Wales for the first time to conduct an Exercise based on offensive operations. Brecon is home to the Infantry Battle School and is notorious for its challenging terrain and unforgiving weather. Beautiful spring sunshine more often than not gives way to miserable rain upon crossing 'The Cattle Grid'. This wasn't my immediate experience, however a short time later the rain fell with such an intensity for 36 hours that goretex became cheese cloth!

The next key milestone was the conduct of Regimental Selection Boards (RSB). This is the choice of arm process and is conducted very differently from RMC-D Corps allocation.

A high tempo ensued for the first 12 weeks of this term with further exercises including Slim's Stand which was defensive focused (think digging!) and Normandy Scholar. This was a particular highlight as

it included two days in Normandy, France conducting TEWT like activities based on historical fact. This included walking in the footsteps of the Parachute Regiment Coy which seized the German Merville Battery and visiting Gold beach in an attempt to put the Cadets in the shoes of a Platoon Commander attempting to lead his Platoon over the sea wall. In all, it was an amazing experience that provided excellent context to the formal studies in leadership conducted within the Academy.

The next key milestone was the conduct of Regimental Selection Boards (RSB). This is the choice of arm process and is conducted very differently from RMC-D Corps allocation. All cadets arrive at RMAS having visited multiple Regiments across the British Army. These are quite typically local units, but are also often the Regiment of choice upon arrival on the Commissioning Course. Each Regiment and Corps maintains an Officer Recruitment cell collocated with their respective Regiment / Corps Headquarters. They actively recruit potential officers from across the country. RMAS conducts Arms displays in the Junior term to further expose Cadets to job possibilities and capabilities. Post this, they are forced to choose two choices of Regiment / Corps. The engagement with these two Regiment / Corps will continue until the RSB week and includes Unit visits and plenty of hospitality being dished out. It is very much a two way street; Cadets are interviewing for a job at all stage of this process while Regiments are doing their best to attract the most talented into their ranks. This saw the birthing of my second extra regimental role. As the only Gunner member of staff within the term, the RA gratefully took me on board as a Regimental Representative. This role culminated in presenting 36 potential officers to the RA selection board for formal interviews. Each Cadet must have an interview with his or her choice of arm after which they will then receive offers of a job or be turned down. Those lucky enough to receive two offers of employment will then make a selection. The RA board consisted of two Regimental Colonels, a recruiting Lieutenant Colonel, the senior Regimental Representative at RMAS and myself. This board eventually offered 25 places of which 16 accepted. This proved to be an extremely rewarding experience for me as I was able to witness great joy from the young guys and girls as dreams were realised. The role has also allowed me to engage extensively with Lark Hill and meet a great deal of RA officers and SNCOs while also helping out our sister Regiment in a meaningful manner.

This proved to be an extremely rewarding experience for me as I was able to witness great joy from the young guys and girls as dreams were realised.

The intermediate term saw the beginning of the Sovereigns Banner Competition which included various competitions to determine the 'best' Platoon of the intake. The two competitions conducted to date have been the physically challenging log race and the drill competition. After extensive preparation and 'motivation' from myself I was extremely proud to watch my Platoon dominate and win the log race; a long lasting tradition of dragging a couple of logs around a cross-country track. The drill competition proved to be a mixed result with a good turnout in dress and bearing, but poor foot drill. The Platoon's performance to date has us sitting second of six in the competition, with many opportunities for success still to come. The competitive streak in me beats strongly as there is nothing better than beating the English at their own game!



Old College

The intermediate term is coming to an end as I write this article. Another week of drill, drinks and ... drill. Summer leave extends throughout August and will be a welcome break from what is a fast paced training regime. Soon enough the Senior term will begin and the final 14 week sprint to Graduation will commence.

The mantra for RMA is 'the Officer Cadet is the centre of everything we do'. For me, they truly make the job enjoyable, challenging and extremely worthwhile. Witnessing and enabling the development of young officers is extremely rewarding, as I know it will make a difference to all serving soldiers within the field Army. I can only hope that I have done some justice for all the 'Squaddies' out there across Great Britain and represented our nation, the Army and the Royal Regiment of Australian Artillery to a fine standard at the same time.

Marfell Sword: 107th Howitzer Battery AIF

*Major James Casey
Battery Commander, 107th Battery &
Warren 'Noddy' Feakes
President, 107th Field Battery Association*

Serendipitously in the Battery's 50th year, there has recently been some scepticism as to the origin of the sword and Sam Browne belt that until the refurbishment of Chau Pha Lines held pride of place in the Battery Commander's office in 107th Battery. Warren supposes because he was there when the items were given to the Battery in 1967, there is no doubt in his mind that the sword was presented by a remaining member of the 107th Howitzer Battery AIF Association to the Battery Commander and men of 107th Field Battery at the Open Day at Holsworthy on 17th June.

A number of discussions have taken place surrounding the origin of the sword, it's history in the Battery and whether a custom had emerged of Battery Commanders carrying it on parade. We felt it significant enough to record here.

During the refurbishments the sword was unceremoniously 'turfed out' without consideration for the sword's significance, but was dutifully saved by the Regiment's dedicated Museum Curator Paddy Durnford (at one stage being stored at Paddy's home to see if anyone was accounting for it!) before the sword was taken back on strength in the Regiment's armoury.

Since assuming command this year, the sword has been inspected by the current Battery Commander and there are plans afoot for the sword and Sam Browne belt to be mounted in the Battery Commander's office once again. A number of discussions have taken place surrounding the origin of the sword, it's history in the Battery and whether a custom had emerged of Battery Commanders carrying it on parade. We felt it significant enough to record here.

Major William Leslie Marfell DSO was the second Battery Commander of 107th Howitzer Battery AIF, assuming command from Major George Patterson in 1916; Major Marfell commanded the Battery until 1919, shortly before his retirement the following year. Major Marfell was awarded the Distinguished Service Order and was Mentioned in Dispatches on the Western Front, as well as being court martialled (for reasons unknown) and served with a severe reprimand – seven months before his promotion to major. He was a member of the Battery's association after the war and when Major Marfell became frail prior to his death in April 1949; he donated his sword and belt to the 107th Howitzer Battery AIF Association. During an Open Day conducted by the Battery in June 1967 at Holsworthy Barracks, Geoff Johnson MM – who served as a bombardier under Marfell before commissioning – presented the sword to the Battery Commander Major George Barnard, along with a trophy.

In any case, the sword and belt are in the possession of the incumbent Battery Commander and awaiting the manufacture of a new display box.

The trophy had been won by the Battery sometime during 1916–18 and was competed for by Left and Right Sections of the Battery in sporting competitions and the like. It was named the 'Black Sheep Cup' and continued to be competed for on and off in the years since. The original trophy is believed to be somewhere in the Regiment, and the last recorded competition for the Cup was in 2010; the Battery undertook a military skills competition on 31 July 2015 (as part of the Battery's 50th Birthday celebrations) to resurrect the Cup. A photograph of the sword, belt and Cup is contained in the Battery's official history (*107th Field Battery RAA: Australia, Malaysia and Vietnam 1965–1971*).

Interestingly, Marfell's sword is an infantry pattern as opposed to an artillery pattern (1822 light cavalry) sword. According to Paddy Durnford and his sources, this was quite common during the First World War, when the vast increase in demand meant that swords other than the 'standard' infantry pattern were hard to come by (or prohibitively expensive); we only know now that the utility of carrying a sword into battle against the machine gun nests of the First World War was significantly less than expected. While Major Marfell's sword frog and sword knot are missing, irreparable or both; the scabbard is surprisingly good condition. However, the blade is showing its age (a century's worth of wear) and the guard is in need of reconditioning. It is perhaps for this reason

that a previous Battery Commander discounted the significance of the sword and its heritage when suggestion was made that the sword and belt should make a glorious return to the Battery Commander's office after the refurbishment. In any case, the sword and belt are in the possession of the incumbent Battery Commander and awaiting the manufacture of a new display box.

Despite our best efforts, no such evidence could be found amongst the 'Olds and Bolds', so the plan to carry the sword on the Regiment's 55th Birthday parade (thus confirming the tradition) and thereafter requesting the tradition be formalised in RAA Standing Orders was rendered moot.

In looking at how best to preserve the sword, it was suggested by Paddy Durnford that perhaps the sword had been carried on parade by a previous Battery Commander in lieu of an artillery pattern sword. The Adjutant (and Battery Commander-designate) of the Regiment at the time took this information and sought the counsel of none other than Chris Jobson. Predictably, Chris was less than impressed with this young captain's plan to carry an infantry sword on parade – and even less impressed with his poor use of terminology in describing Major Marfell as a 'predecessor' through historical 'lineage'. Chris almost burst an aneurism when it was suggested the sword be carried by the Battery Commander on ceremonial parades! Again, the young captain understood Chris's defence of artillery officers carrying artillery swords, so it was promised that further research would be done to ascertain whether a previous Battery Commander had ever carried the sword on a ceremonial parade before doing so again. Despite our best efforts, no such evidence could be found amongst the 'Olds and Bolds', so the plan to carry the sword on the Regiment's 55th Birthday parade (thus confirming the tradition) and thereafter requesting the tradition be formalised in RAA Standing Orders was rendered moot. Consequently, the sword's new display box will not be built with access for regular use in mind.

On the subject of lineage, Chris Jobson is correct; the original battalions of the Royal Australian Regiment hold lineage to the 65th, 66th and 67th Battalions from which they were 'rebadged', but the 1st Battalion does not draw a line back to the 1st Battalion AIF. Similarly, the current 107th Battery does not 'descend' from 107th Howitzer Battery AIF – we only share a number. In fact, 107th Howitzer Battery was originally 28 Field Battery, so the only true

'lineage' is in this respect. That being said, with the 'adoption' of 107th Field Battery by the 107th Howitzer Battery AIF Association (of which Major Marfell's sword and the Black Sheep Cup are the evidence), the 'lineage' is real, even if unofficial. As with most batteries I have served with, I accept the Battery's history starts in 1965, but we give a respectful nod to those who bore the number '107' before us. Their stories are an important prelude to our Battery's history since being raised in 1965 by the only Battery Commander to ever be awarded the Victoria Cross – a young captain by the name of Peter Badcoe.

'The Marfell Sword', will be mounted with its scabbard in a display case similar to those in the RAA Officers Mess, and will hold pride of place in the Battery Commander's office. While there is no intention of carrying the sword on parade, the case will be able to be opened for periodic maintenance of the sword, and it will be handed to successive Battery Commanders upon assuming command. We will be in discussions with interested parties about getting the sword refurbished, although I am conscious the cost will be prohibitive. The belt will be restored before being displayed in a similar fashion to the sword. A new sword knot will be tied to the guard, with the knot hanging freely in the correct artillery tradition. A small frame outlining the history of the Marfell Sword will accompany the items, ensuring the significance of Major Marfell's presents to the Battery – so indicative of the extension of the 'lineage' of the Battery – are remembered.

About the Authors

Major James Casey is a graduate of the Australian Defence Force Academy and the Royal Military College – Duntroon. Commissioned into the Royal Regiment of Australian Artillery in 2005, he has held Regimental appointments in 8th/12th Medium Regiment, 'A' Field Battery, the School of Artillery and 4th Regiment RAA. He has served on operations in the Solomon Islands and Afghanistan. He is the incumbent Battery Commander of the 'Rampant Rammers'.

Warren 'Noddy' Feakes is the President of the 107th Field Battery RAA Association. Serving over 34 years in the Army, he is a graduate of the Officer Cadet School – Portsea, and served with the Battery as a Section Commander, Gun Position Officer and Forward Observer from 1967 to 1971. Retired and living in Canberra, he is an avid skier, participating regularly in national and international cross-country skiing as a member of the Australian Masters team.

Mr Bill Rundle, AFATDS Senior Field Engineer II

*Warrant Officer Class One Matthew Sullivan CSM
Regimental Master Gunner*

Raytheon Command and Control Systems announced Bill Rundle as the Company's Australian Field Support Engineer (FSE) during the September 2008 Advanced Field Artillery Tactical Data System (AFATDS) FSE Homecoming Conference at Fort Wayne, Indiana.

Bill's reputation preceded him with many Raytheon FSEs at the Conference and numerous Raytheon employees strongly supporting his appointment to the RAA AFATDS Train-The-Trainer team that was at Fort Wayne at that time conducting initial training on AFATDS V6.5.0.0. Bill was the right man for the job, with a vast experience and knowledge base to draw on from his time in the US Field Artillery as a command system SNCO and later, at all command levels up to Divisional level as a senior AFATDS FSE. Bill had first hand experience as an operator and FSE during the US Field Artillery's evolution to digitisation of the Fires environment that would no doubt assist the RAA with its transformation. Bill would join the RAA in Australia, in November 2008



Bill Rundle with Lieutenant Colonel Damian Hill Commanding Officer 4th Regiment and Master Gunner 4th Regiment Warrant Officer Class One Reg Grundell after he was presented a framed Regimental cypher in recognition to his loyal and dedicated support to the Royal Regiment and the AFTADS program.

straight from his appointment as the FSE to the US 3rd Infantry Division.

As planned Bill, Rick Taylor and Willy Fry arrived in Darwin after multiple stopovers along the way in early November 2008 to deliver the initial AFATDS V6.5.0.0 training to 8th/12th Medium Regiment who, having just received AFATDS and the Australian Portable Excalibur Fire Control System were on their way to digitisation with the 155mm M198 Howitzer under Joint Project 285, Phase 1A (JP 285 1A).

Bill was the right man for the job, with a vast experience and knowledge base to draw on from his time in the US Field Artillery ...

Bill's early years as an FSE in Australia were split between JP 285 1A and the Land 17 (Artillery Replacement) Programme, assisting, guiding and advising AHQ, DMO and other agencies on the broader digital fires integration, training and implementation challenges and specifically the capabilities and challenges associated with integrating AFATDS. Numerous hours and days were spent conducting conformance to standard testing with the Tactical Information Exchange Integration Office, integration work and testing with the Land Network Integration Centre, and yet further integration work with the Coalition Attack Guidance Experiments and simulation work with the Combat Training Centre.

The Royal Regiment of Australian Artillery is sad to see him go after seven years, and thanks him for his tireless efforts in the RAA evolution to digitised joint fires.

Finally by early 2011 AFATDS V6.7.0.0 and the M777A2 Howitzer started to replace existing equipment within units and Bill's time now focused on assisting in training RAA personnel, firstly at the AFATDS Battle Management System – Fires (Command and Control) classroom at the School of Artillery, which Bill helped design and establish, then in the field as units commenced operating with the new equipment. Bill has spent weeks over the last few years with all Offensive Support Regiments and the School of Artillery, assisting, guiding and advising all personnel from the newest operators to unit COs on how to best achieve a particular task, or how to fix a particular problem with the newly acquired digital systems. He was

always only a phone call or email away and his advice was always timely, accurate and greatly appreciated by all. In Bill's words:

“It has been a pleasure and privilege to work with the soldiers, NCOs, and officers of the Australian Defence Force. During my service in the U.S. Army and abroad as a Field Support Engineer, I have observed and worked with many different services and in my opinion the ADF is one of the most professional. Digitization requires a tremendous effort and command emphasis to be successful. I feel fortunate because I played a part in the integration, training, and implementation of the digital systems within the ADF. I worked with each of the active regiments during numerous training events, and observed first hand the transformation from manual charts and darts to a fully digitized fires thread. My parting advice is leaders need to ensure the soldiers maintain proficiency by using the systems, digital training aids, training packages, and the digital training facilities that the project provided. Complacency is how we lose currency; digital systems require extensive training to implement and significant training (weekly) to maintain. I challenge all Offensive Support NCOs' and Officers is to institute a sustainment training program to ensure your soldiers maintain currency.”

As of 15th July 2015 and after a short break Bill will take up his new appointment with Raytheon Command and Control Systems in Fort Wayne, Indiana. In his new appointment he remains involved with the Australian product line, including AFATDS V6.8.0.1 training packages, implementation of Australian requirements, and test of the Australian AFATDS V6.8.0.1 software. He will also be on a response team to assist the Australian AFATDS FSEs when issues develop or are identified that are specific to the Australian baseline. The Royal Regiment of Australian Artillery is sad to see him go after seven years, and thanks him for his tireless efforts in the RAA evolution to digitised joint fires. The Gunners wish him every success in his new appointment, knowing that AFATDS V6.8.0.1 is just around the corner and Bill's continued support will make this transition that much easier.

My Family in World War One

*Bombardier Alex Carless
8th/12th Regiment RAA*

This essay is in response to my trip to Gallipoli to commemorate the centenary of the Battle of Lone Pine. I would like to thank the Australian Army for the opportunity and especially my chain of command for their assistance, guidance and support.

... I had two relatives who served in Gallipoli and the Middle East. They both served in Gallipoli in August 1915.

The title of this essay is *My Family in World War One*, because on learning of this wonderful opportunity, I began to research my family's involvement in the war. With the assistance of the Australian War Memorial and the National Archives; I learned that I had two relatives who served in Gallipoli and the Middle East. They both served in Gallipoli in August 1915. It was for this reason and because it coincides with the one hundred year anniversary of my ancestors contribution to the Great War, that this opportunity held so much meaning for me.

The first was *George Vernon Evans* of the 6th Light Horse Regiment. This Regiment was raised in Sydney in September 1914 from men who had enlisted in New South Wales and became part of the 2nd Light Horse Brigade. Departing from Sydney on 21st December 1914, the Regiment disembarked in Egypt on 1st February 1915. The light horse were considered unsuitable for the initial operations at Gallipoli, but were subsequently deployed (without their horses) to reinforce the infantry. Evans and the 2nd Light Horse Brigade landed at Gallipoli in late May 1915 and were attached to the 1st Australian Division. The 6th Light Horse Regiment became responsible for a sector on the far right of the Anzac line, and played a defensive role until it left the peninsula on 20th December 1915¹.

I visited some of the areas where they likely walked, ate, slept, and witnessed the horrors of that time...

Interestingly, another relative *George William Wright* was also at Gallipoli at the same time as part of the 2nd Light Horse Regiment. The 2nd Light Horse Regiment deployed to Gallipoli (also without its horses) and also landed there on 12th May 1915, joining the New Zealand and Australian Division. It played a defensive role for most of the campaign but did attack the Turkish trenches opposite Quinn's Post (pictured), one of the most contested positions along the Anzac Line. The first assault wave was mown down and fortunately the officer commanding the attack had the wisdom and courage to call it off. The 2nd was withdrawn from the front line in September and left the peninsula on 18th December 1915². It was interesting to me that two distant relatives, from two different parts of my family were both at Gallipoli at the same time and probably in similar locations.



On my visit there 100 years later, it was a solemn occasion to see the area they fought and many of their mates died. I visited some of the areas where they likely walked, ate, slept, and witnessed the horrors of that time and I was struck by the terrain and how difficult it would have been to attack under such conditions. They were truly lucky to come out of that experience alive.

After Gallipoli, my two relative's war experiences took very different paths. Evans was promoted though the ranks to Lieutenant and served in the Middle East. It was said that by March 1918 the light horsemen of the 2nd Light Horse Brigade had no expectation of an early end to the war and were true soldiers. They had become "*tired of the whore houses of Cairo and Port Said*" and began to follow their "*soldier's life with great heartiness, fighting like devils when they had to fight, and missing none of the little pleasures along the many strange tracks they rode. About the villages they wooed the Jewish girls with great industry but little success*"³.

On the 27th March 1918 the raid on Amman was underway. The official history records the charge by he and his mates in the light horse in this way:

For a time, the Turks held their fire, and the light horsemen covered three-quarters of a mile almost without casualties. Then, as if in instant response to a single order, guns, machine-guns, and rifles opened fire together, with a roar and a rattle which echoed and re-echoed from the hills and wadys that covered them. The Australians, although falling thickly, pressed gamely on until some of them were within six hundred yards of the place where they believed the invisible village to be located. But as the enemy corrected his range the deluge of shells and hail of bullets became annihilating in intensity, and the advancing lines were forced to take to the ground for cover. For a time they held on; but they had no targets, their losses continued heavy⁴.

During the next two days of fighting “the 6th and 7th had suffered severely in both officers and men”. The light horse casualties had been heavy; of the fifty-eight men in Ryrie's squadron of the 6th, forty were killed, wounded, or missing. “Of the officers in the 6th Majors Ryrie and Cross; and Lieutenants G. V. Evans,¹ H. G. Lomax, A. B. Campbell, and H. Dickson were wounded, while Ridgway (who, as was afterwards learned, had been killed) was missing; in the 7th Major Barton, Captain Suttor, and Lieutenant Finlay were wounded”⁵. The raid failed and the men returned across the Jordan River to safety (pictured exhausted light horse from the 6th and 7th withdraw from Amman⁶).



In contrast to Evans, George Wright's return to Egypt was anything but smooth. He was constantly in trouble with senior officers; either fighting or in hospital being treated for communicable diseases. He was charged with being absent without leave in Cairo, drunkenness, and eventually court-martialled and gaoled for months for assaulting a sergeant and saying to a senior officer, “if you take your stars down I'll punch you”⁷. He was sentenced to 4 months imprisonment in Egypt at the height of the desert summer, a punishment made all the worse due to the heat. In his court martial documents, he defended himself by saying that that he felt he was drunk and couldn't remember any of the events alleged, but witnesses

testified they could not smell alcohol on his breath. I am told by my grandfather that it wasn't until many years later he was diagnosed with diabetes, a disease that commonly exhibits aggression and incoherence when someone is lacking in sugar. This is a possible explanation for his aggressive ‘drunkenness’ when he was not drunk.

In any case, they physically survived the war but doubtless the mental anguish from what they witnessed in Gallipoli haunted them for many years. I am proud of their service and I now have a greater appreciation for what they went through having been to that peninsula 100 years later.

Endnotes

1. See Australian War Memorial, War History 6th light horse regiment, Online Source found at <https://www.awm.gov.au/unit/U51040/>
2. See Australian War Memorial, War History 2nd light horse regiment, Online Source found at <https://www.awm.gov.au/unit/U51036/>
3. See Official History of the First World War 1914 - 1918, Volume VII - The Australian Imperial Force in Sinai and Palestine, 1914-1918 (10th edition, 1941) found at <https://static.awm.gov.au/images/collection/pdf/RCDIG1069617—1-.pdf> p. 549.
4. See Official History of the First World War 1914 - 1918, Volume VII - The Australian Imperial Force in Sinai and Palestine, 1914-1918 (10th edition, 1941) found at <https://static.awm.gov.au/images/collection/pdf/RCDIG1069617—1-.pdf> p. 566.
5. See Official History of the First World War 1914 - 1918, Volume VII - The Australian Imperial Force in Sinai and Palestine, 1914-1918 (10th edition, 1941) found at <https://static.awm.gov.au/images/collection/pdf/RCDIG1069617—1-.pdf> p. 571.
6. See The First Battle of Amman found at http://alh-research.tripod.com/Light_Horse/index.blog?topic_id=1113719
7. See <http://recordsearch.naa.gov.au/SearchNRetrieve/Interface/ViewImage.aspx?B=3448356>

Horrors of brutal conflict by Waterloo's glorious myth

Ben MacIntyre (The Times), The Week-end Australian, May 2-3, 2015

"It has been a damned nice thing," Wellington declared in the aftermath of Waterloo, using the word "nice" in its older sense, to mean uncertain and finely balanced. "The nearest-run thing you ever saw in your life." It was also one of the nastiest.

Britain is preparing to commemorate the 200th anniversary of the most battle in history on June 18. There will be speeches, re-enactments, and the traditional Anglo-French wrangle over whether this was a minor but heroic French setback or a definitively glorious British victory. But the colour and controversy should not obscure a central and often forgotten truth about the Battle of Waterloo: it was a bloodbath, a brutal, filthy, chaotic killing field in which men butchered one another with the latest technology and medieval ferocity.

"I had never yet heard of a battle in which everybody was killed," said one British rifleman, "but this seemed likely to be an exception."

In the run-up to the centenary of the First World War, some historians feared that revulsion at the horror of the trenches would over-whelm discussion and meaning: the "pity of war", in soldier-poet Wilfred Owen's phrase, threatened to dominate the subject.

The Waterloo bicentenary faces exactly the reverse problem: a focus on glorifying a battle that transformed the history of Europe without remembering quite how horrific, messy and wasteful it was.

An area of just more than 5 sq km was fought over by 200,000 men, 60,000 horses and 537 guns, a density of conflict that makes the Somme seem diffuse by comparison. In a single day, up to 50,000 men were killed, with many more wounded. Much of the fighting was man-to-man, using sabre, bayonet or pike; couriers got lost in the smoke; many soldiers perished when cannons backfired, or from bacteria on cloth blasted into human flesh by musket balls.

The popular impression of the battle is of heroes hurling themselves into battle with clear purpose and stiff upper lip; the unbroken squares, Lady Butler's charging Scots Greys, and Lord Uxbridge pointing out (by God, Sir) that he had lost his leg. It was not like that for most participants. Major WE Frye described the aftermath of battle as a "sight too horrible to behold ... the heaps of wounded men with mangled limbs unable to move, and perishing from not having their wounds dressed or from hunger, formed a spectacle I shall never forget".

This is how Colonel Fredrick Cavendish Ponsonby of the Light Dragoons spent his day: having charged too far through the French infantry, both of his arms were

disabled by sabre cuts; then he fell off his horse and was speared in the back by a French lancer; a skirmisher robbed him as he lay helpless; another used him as a barrier, firing over his body; finally, he trampled by the advancing Prussian cavalry. Astonishingly, he survived to become Governor of Malta.

Ponsonby managed to keep all his limbs. But 2000 British soldiers were less fortunate. According to Michael Crumplin, author of the "The Bloody Fields of Waterloo", amputations were performed in about 15 minutes, with the patient standing up and a glass of brandy and water as anaesthetic, if he was lucky.

The dentists also had a field day. In the early 19th century, dentures made from real teeth sold for high prices. Dental scavengers scoured the battlefield and 52 barrels of dead men's teeth are said to have been shipped to London to be made into "Waterloo Teeth".

War always produces unintended benefits. The experience of Waterloo led to important advances in Battlefield medicine; the London's Claudius Ash was so sickened by handling dead men's teeth he perfected and marketed the first porcelain dentures.

The dead, mangled and traumatised of Waterloo had no Owen or Siegfried Sassoon to memorialise their fate. There were attempts to depict reality: a set of watercolours, now on display at the British Museum and thought to have been painted by Irishman Thomas Stoney, show the naked bodies of the slain lying in the fields. JMW Turner's 1818 painting "The Field of Waterloo" was overtly anti-war, imagining a sea of mauled cadavers beside a stagnant pool.

That was not the image of Waterloo that the powers wanted to promote, or the public wanted to see. The battle became part of a patriotic narrative in which the British (with some assistance of the Prussians) put paid to Napoleon's European megalomania.

The Foreign Office today describes the battle as a victory for "British military heroism". Waterloo was a genuine turning point (these are rarer than we like to imagine), ending more than 20 years of debilitating conflict. For a century after, no British army would fight in western Europe.

Amid the carnage of 1914-1918, the suffering and the horror have tended to eclipse the wider story of that war. The reverse is true of Waterloo, an event so dramatic and central to British mythology that the bloody, muddy reality of hand-to-hand warfare in 1815 has often been obscured.

Wellington's triumph was not the result of moral righteousness, or even great tactical skill, but a particularly terrible way of killing.

"No troops on Earth except the English could have won the victory," wrote Captain William Turnor the morning after.

"They are in action savagely courageous."

PIONEERS OF AUSTRALIAN ARMOUR

In the Great War

Pioneers of Australian Armour tells the story of the only Australian mechanised units of the Great War. The 1st Australian Armoured Car Section, later the 1st Australian Light Car Patrol, and the Special Tank Section were among the trailblazers of mechanisation and represented the cutting edge of technology on the Great War battlefield.

The 1st Armoured Car Section was raised in Melbourne in 1916, the brainchild of a group of enthusiasts who financed, designed and then built two armoured cars. Having persuaded the Australian Army of the vehicles' utility in the desert campaign, the Armoured Car Section, later re-equipped with Model T Fords and retitled the 1st Australian Light Car Patrol, provided valuable service until well after the Armistice.

The First World War also saw the emergence of the tank which, despite unpromising beginnings, was to realise its potential in the crucial 1918 battles of Hamel and Amiens. A British Mark IV tank which toured Australia in 1918 demonstrated the power of this new weapon to an awestruck Australian public.

Much of the story of the armoured cars is told in the voices of the original members of the section and in newspaper articles of the time which highlight the novelty of these vehicles. Painstaking research has produced a remarkable collection of images to accompany the narrative, many never previously published. Biographies of the members of these extraordinary units are also a feature of this book, their stories told from the cradle to the grave. Appendixes provide a wealth of supporting biographical and technical information that enriches the text and adds factual detail.

PIONEERS OF AUSTRALIAN ARMOUR

In the Great War

David A. Finlayson & Michael K. Cecil



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- Unveils many unpublished documents and research.
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Capability

Assesgai a Land 17 Ph1C.2 Contender

By Julian Kerr

Reproduced from the Australian Defence Magazine, June 2015 Edition

A TWO-DAY LIVE FIRING DISPLAY AT SOUTH AFRICA'S DENEL OVERBERG TEST RANGE IN MID-APRIL SHOWCASED THE PERFORMANCE OF THE RHEINMETALL DENEL MUNITIONS' (ROM'S) ASSEGAI FAMILY OF 155MM ARTILLERY PROJECTILES THAT WILL COMPETE FOR PROJECT LAND 17 PHASE1C.2 – FUTURE ARTILLERY AMMUNITION; A REQUEST FOR TENDER (RFT) FOR WHICH IS EXPECTED LATER THIS YEAR.



A series of test firings demonstrated the Assesgai family of munitions for numerous international customers

BUT THE display also served to illustrate for the attendees from 57 countries, including two artillery specialists from the ADF, the remarkably diverse manufacturing capabilities of the South African defence sector.

These range from armoured vehicles and large, medium and small calibre ammunition to air-to-air, air-to-surface, surface-to-air and anti-tank missiles, long range artillery systems, mortars, automatic

grenade launchers, and complex electro/optical systems.

The Overberg Test Range some 200 km east of Cape Town is uniquely situated to conduct long range weapons testing, consisting as it does of 43,000 uninhabited hectares and 70km of coastline facing a virtually unrestricted sea area stretching into the South Indian Ocean.

This facilitated a series of Assega i firing utilising a Denel Land Systems G5 truck-mounted 155mm howitzer fitted with a G6 52 calibre barrel.

In one such firing, undertaken with the gun just 200 metres from the attendees' viewing area, an Assega i velocity enhanced long-range projectile (V-LAP) combining base bleed and rocket motor technology was shown to impact on a target area 54.8 km to the south.

All 11 Assega i projectile types are supplied with a boat tail assembly that can be replaced in the field with a base bleed unit, adding about 30 per cent to the maximum range. Base-bleed conventional and insensitive high explosive (HE and IHE), incendiary, and screening smoke projectiles were all seen to impact well within designated target areas from 40 km out. Night firings saw the deployment of both visual and infrared artillery shells.

Since all Assega i projectiles are ballistically matched changes to fire control tables are not required when switching between different capabilities. This ballistic stability is enhanced by a five-zone Rheinmetall Insensitive Munition (IM) compliant modular charge system that is qualified for use in all NATO standard 39 and 52 calibre gun configurations.

An impressive direct fire demonstration saw the G5/G6 fire two Assega i practice shells under full zone-6 charge – to ensure flat trajectories – at a distance of about 700 metres at a target of thin metal. The second shell went through the same hole created by the first shell.

The 155mm gun of choice was to have been the BAE Systems' M777 ultra-light weight towed howitzer, in service with the ADF, the US Army and Marine Corps, and Canada, and under consideration by several other countries including India.

However, the M777 failed to arrive because the necessary authorisations from the US and UK could not be obtained in time, BAE Systems said.

Ultimately this had no effect on an exhibition focused more on munitions than the means by which they are delivered, although the distances reached by the 39 calibre M777 would have been about 25 per cent less than those achieved by the 52 calibre G5/G6 combination. A test range 39 calibre 155mm howitzer was used, however, to demonstrate the versatility of both the 39 and 52 calibre ordnance.

Executives from Rheinmetall Defence – which along with the Rheinmetall Denel Munitions (RDM) joint venture and Denel was a joint host of the Overberg



event – confirmed the company's intention to bid for Land 17 Ph1C.2.

This is being progressed separately from Land 17 Phase 1C.1, under which 54M777A2 systems were acquired several years ago to replace Army's 105mm Hamel guns.

It is also separate from last year's decision renewing the incumbency of Thales. Australia in the so-called Domestic Munitions Manufacturing Arrangements (DMMA) covering the Mulwala explosives and propellant plant in southern New South Wales and the Benalla munitions facility in northern Victoria.

Although details of the required ammunition mix, quantities and supply schedule are not yet known, the RDM executives were confident the Assegai family was probably unique in its ability to meet all anticipated ADF specifications, including DMO concerns about surety of supply.

These concerns would be covered by Assegai production that is already underway in both Germany and South Africa.

Rheinmetall Defence would be happy to discuss manufacturing options in Australia, but these were likely to come at a cost, the executives said.

While the company might find it difficult to match the price of the conventional 155mm ammunition from Alliant Techsystems and General Dynamics currently supplied to the ADF via the US Foreign Military Sales (FMS) channel, it was very confident of its ability to provide cost effective operational and sustainment solutions for the insensitive munitions that would almost certainly be mandated.

Increasingly, emphasis was being placed on mission cost rather than unit cost. Here the unique lethality of RDM's IM high explosive (HE) preformed prefragmented projectile would come into play.

The explosion of its 8.8kg PBX warhead produces more than 20,000 fragments not only from the projectile's casing but also from encapsulated tungsten spheres, creating the same effect over an area the size of a football field as four or five conventional HE shells.

The executives confirmed Rheinmetall Defence would be offering its 36-tonne Boxer 8x8 for Project Land 400, but declined to comment on speculation the company would be teaming with Northrop Grumman.

They disclosed however that Rheinmetall would be prepared to sell capabilities such as its Lance

Diehl looks to the Australian market

Katherine Ziesing Canberra

AS THE ADF looks to make the most of its direct and indirect fire assets, Diehl is making its mark with its Vulcano group of ammunitions in Germany and Italy.

The future of the Bundeswehr describes the need for the capability of precise and range extended effective strikes. With indirect fire against stationary and moving dangle and point targets in Germany, this is performed with the PzH2000 (remember Land 17 anyone?) and the F125 Frigates. Both are to be equipped with the Vulcano precision-guided munition

The Vulcano family of weapons was a joint development effort between Italy's Oto Melara and Diehl Defence, based on bilateral government-to-government arrangements. The two companies have also signed a further MoU for future developments based on the success of the vulcano program.

Vulcano features both 127 mm (for naval applications for both the FREMM and Type 125 frigates but can also be used in the Mk54 gun) and 155mm (for the PzH 2000 and M-777) natures with a combination of GPS mid-course navigation with laser or infrared sensors for terminal homing.

Both German and Italian defence forces are due to enter the final validation testing of the munition for both naval and land artillery gun systems soon, with the final sign off scheduled for 2016, with deliveries scheduled for both forces soon after.

Company representatives did not want to comment on their Australian marketing strategy at this time but ADM understands that relevant phases of Land 17 and their naval equivalent will be of interest in due course

medium calibre modular turret and its hardkill active defence system to Land 400 competitors.

From various conversations it was clear that Rheinmetall sees itself playing an increasing role in the Australian defence market, notwithstanding its disappointment in the DMMA decision and the process by which it was reached.

South African defence capabilities

Originally driven by apartheid-era sanctions to attain a high level of self sufficiency, the South African defence industry as a whole continues to provide the bulk of South African National Defence Force (SANDF) requirements excluding air and naval platforms, as well as maintaining a diverse stream of exports.

Some 2,418 contracts with 88 countries, worth about US\$250 million, were approved in 2014 by the National Conventional Arms Control Committee.

A number of these involved regional countries – 11 armoured personal carrier (APC) turrets and 30 minefield breaching systems to Malaysia; 53 six-shot 40mm automatic grenade launchers (AGLs), anti-materiel rifles and 122 transceivers to Indonesia; and 180 aerial bombs to the Philippines.

The largest customer was the United Arab Emirates – 26 APCs, 63,000 mortar bombs, six G5 155mm artillery systems, 135 60mm long range mortar systems and 427 AGLs. Saudi Arabia purchased 100 APCs and Azerbaijan 16.

Many of those present at the Overberg event were already customers, and they were given their monies' worth with a series of lavish day and night live-fire demonstrations, several presenting new as well as known capabilities.

Probably the most spectacular was a sortie by a Denel Rooivalk attack helicopter, first demolishing a gunnery target with a salvo of FZ 90 70mm rockets whose motors are produced by RDM, then undertaking -90 and +90 deflection attacks with its nose-mounted 20mm cannon against the hull of a Centurion tank.

This was followed by the live firing of a Denel Dynamics Ingwe 5,000-metre range laser-guided missile from a prototype Badger infantry fighting

vehicle (IFV) fitted with the latest anti-tank guided weapon (ATGW) turret. This features two Ingwe on either side and a 7.62 mm machine gun.

The Badger is a development of the Finnish Patria 8x8 armoured modular vehicle being advanced by BAE Systems for Land 400, but has a variety of modifications to meet SANDF requirements including a much enhanced protection package, particularly against IEDs.

The first of the 18 hulls to be made in Finland will arrive in South Africa shortly, with the balance of the 238 Badgers on order to be constructed there.

A closeup view of Denel Munitions' proximity fuses in action was given by an Oto Melara 76/62mm compact naval gun similar to those aboard the RAN's Adelaide class FFGs blasting a replica seaskimming Exocet antiship missile with three rounds in three seconds.

Potential competition for the Joint Direct Attack Munition Extended Range (JDAM-ER) jointly developed by Boeing and the DSTO appeared with the Al-Tariq (Shooting Star) guided bomb kit, a strap on system for Mk81, Mk82 and Mk83 bombs that is a joint venture between Denel Dynamics and Tawazun Dynamics of the UAE.

A demonstration at the Overberg range saw an Al-Tariq launched from a South African Air Force Hawk trainer at 30,000 feet strike less than a metre from the designated point of impact after a camera monitored flight of 40km.



The Badger is a development of the Finnish Patria 8x8 armoured modular vehicle being advanced by BAE Systems for Land 400 but with local requirements answered.

Discussions are now underway with South Korea on integrating the Al-Tariq on the Asian country's FA-50 Golden Eagle light fighter, according to Theuns Botha, Denel Dynamics' product manager for stand-off weapons.

Botha said the discussions involved the GPS/INS-guided variant, with fold-out wings and booster motor giving a range of about 100 km. The wingless variant provides a range of about 40 km, depending on the release altitude.

The South Korean talks marked the start of an international marketing campaign following the completion in South Africa of "several hundred" of the kits for the UAE, Botha said. The kits were now operational on the UAE's Mirage 2000-9 fighters and Hawker 102 trainers, he disclosed.

Manufacturing would move to the UAE around the end of 2016 after which the South African company would focus on development. This was likely to include a radar seeker, and extending the range up to 200 km.

Although the Al-Tariq faces strong competition from the well-established JDAM and JDAM-ER, the absence of ITARS issues may prove of significant benefit.

Disclaimer – Julian Kerr travelled to South Africa as the guest of Rheinmetall Defence.

Gunline Defence Simulation Training

*Captain Pat Benson
Battery Captain 105th Battery*

Throughout 2015 the 105 Battery gunline has been conducting a series of gunline defence training exercises utilising Virtual Battlespace 3 (VBS 3) at the Gallipoli Barracks Simulation Centre. VBS 3 is a computer based simulation which allows for realistic simulated training encompassing various locations and scenarios. Within the system, each soldier is given a computer and controls the movement of their individual soldier within the simulation. This allows each soldier, not just the commanders, to test their reactions and defensive

procedures and improve on areas as required. To aid the development of the training, 105 Battery was able to engage with the contractors who run the training system, build various scenarios, including relevant enemy pictures and situations, and conduct the training over a number of days.

The training using VBS 3 was built primarily around the necessity to test and modify new gunline defence Tactics, Techniques and Procedures (TTPs) including gun position defence and convoy protection. While this is best done out on the ground as a full callsign, the size limitations of Gallipoli Barracks means it can be very difficult to design effective training in previously unseen locations. This is where VBS 3 aided our training the most.

The use of simulation training also allowed 105 Battery to modify and reset the scenario as required, something which can be time consuming in the field.

There were three main scenarios designed for the training. Firstly, a basic training scenario where soldiers could test out the controls, practicing movement, how to enter and exit vehicles, fire weapons and navigate. Secondly a local defence of the gunline against dismounted and then mounted enemy was designed to test the defensive TTPs and actions of each detachment and soldier. Thirdly, a convoy scenario was used to better develop how the gunline reacted to an ambush on a move to a gun position. These scenarios were invaluable for the development of gunline TTPs in the barracks environment, leaving us more time to refine them on the ground when in the field.

The use of simulation training also allowed 105 Battery to modify and reset the scenario as required, something which can be time consuming in the field. This allowed for After Action Reviews (AARs) to be conducted at various points throughout the scenario, and then any friction points revisited to improve on any issues. Final AARs were also aided by the AAR tool on VBS 3 which allowed commanders the ability to look over each element of the scenario and make draw out learning points as required. VBS 3 is an excellent system for the development and refinement of basic gun line TTPs in defensive routine and is one which will definitely be used again.

Soldier Combat System

Lieutenant Colonel BG McLennan
Staff Officer Combat Development
Army Headquarters

Introduction

It is a dynamic period of capability development for the Australian Army's combat soldier and officer. Commencing in 2015, combat soldiers / officers that comprise or support Army's combined arms teams will progressively become the best, or at least amongst the best, equipped combatants in any Army – anywhere.

This article will describe how Army is modernising the Soldier Combat System (SCS). Firstly, it will establish the logic leveraged by Army to verify the modernisation needs and requirements of the SCS. It is important to understand this logic as it explains how, when and why Army modernises the combat soldier / officer. Secondly, it will discuss the key modernisation initiatives being pursued by Army for the SCS. Thirdly, this article will identify how Army is working to avoid new capabilities sliding into obsolescence. Finally, it will identify the critical role performed by soldiers and officers in Infantry, Artillery and Armoured corps units and schoolhouses in optimising capability. Capability optimisation is far more than just having the 'latest and greatest' equipment. Indeed, if Army's combat soldiers and officers adopt the wrong approach, they confront a real risk of becoming a combined arms capability with 'all the gear and no idea'.

For reasons of commercial sensitivity, this article will not detail those projects that are still in the capability development 'pipeline'. Nor will it describe Corps specific modernisation initiatives – such as LAND 400 and LAND 17. However, henceforth, a capability 'SITREP' will be provided to each issue of the Corps journal. This will keep those in the Corps, and those supporting the Corps, aware of Army's progressive pursuit of world's best capability for the SCS.

Logic underpinning SCS capability development

Army has crafted a simple logic for building the capability needs and requirements of the SCS. This logic is informed by characterising the SCS,

defining the land combatant by Tiers and classifying Army's combatants by Echelon. It is vital one understands this logic at the outset of any capability development discussion. Consequently, each of these logic pillars will be described.

The SCS provides the principle frame of reference for identifying and defining the capability needs and requirements for the combat soldier and officer – both mounted and dismounted.

The Soldier Combat System (SCS). The SCS consists of all the elements, and sub-systems, that enable the land combatant to expertly perform their individual role in any operational context. The SCS provides the principle frame of reference for identifying and defining the capability needs and requirements for the combat soldier and officer – both mounted and dismounted.



The SCS incorporates six sub-systems. To borrow Aristotle's axiom, the 'holistic value' of these sub-systems 'is greater than the sum of their individual parts.' They are at once interdependent and in competition with each other. They include Lethality, Survivability, Mobility, Command Control and Situational Awareness (C2SA), Sustainability and Training and Education and are defined as follows:

- **Lethality.** Enables the combatant to employ lethal and non-lethal force.
- **Survivability.** Enables the combatant to survive physical and psychological attack and withstand adverse environmental conditions.
- **Mobility.** Enables the combatant to manoeuvre, remain agile and negotiate obstacles in a wide range of tactical environments.
- **Command and Control Situational Awareness (C2SA).** Enables the combatant to learn and exchange tactical information in a timely manner.

- **Sustainability.** Enables the combatant remain combat effective for the duration of their task, especially while operating in austere and/or contaminated conditions.
- **Education and Training.** This sub-system is intrinsic to the aforementioned five. When executed in a methodical, systematic, robust, challenging, current and creative manner, education and training transforms hardware/software/ platform into true capability.
- **Training Echelon (Trg Ech).** The Trg Ech includes combatants undertaking and staff instructing *ab initio*, initial employment courses, officer basic courses, specialist courses and Special Forces selection.
- **Staff Echelon (Staff Ech).** Combatants not posted to F Ech or Trg Ech units yet require access to specific equipment for Individual Readiness or Physical Employment Specification Assessment testing.

The Tiered combatant definitions. This logic pillar equips land combatants according to their primary task and likelihood / type of threat encountered. The tiered approach optimises the balance between the SCS sub-systems as well as the affordability and feasibility of each modernisation initiative. *It is not a status symbol.*

- Infantry soldiers, along with Special Forces operators, Combat Engineers and Joint Fires Team members, are classified as **Tier 2 Dismounted (T2D)**. This means they are *'combatants who seek out and close with a threat force with the intent to kill or capture it. In addition, they regularly operate as part of a dismounted combined arms team.'*
- Armoured Corps soldier and officers are defined as **Tier 2 Mounted (T2M)**. This means they *'operate and fight Armoured Fighting Vehicles (AFV) as part of a combined arms team.'*
- Excepting Joint Fires Teams, Artillery soldiers and officers are classified as **Tier 3 General Combatant (T3)**. This means their *'role and tasks are primarily focused on providing combat support and combat service support to combined arms teams.'* Yet they remain *'responsible for their own local security, force protection and in-extremis close combat.'*

The Echelon (Ech) classification. This logic provisions land combatants according to their level of preparedness. The Ech provisioning rationale optimises readiness, project affordability and feasibility. Commensurate with the Tiered combatant logic, it inculcates a culture of equipping based on need and affordability. Need is underpinned by level of readiness. The Ech classification includes the following:

- **Fighting Echelon (F Ech).** The F Ech includes combatants posted to units that force generate (FORGEN)/operationally generate (OPGEN) individuals / FE for known or contingency operations – irrespective of their status in respective force generation cycles.

The SCS, Tiered Combatant and Ech definitions constitute the pillars upon which Army builds combat capability. It is critical that both soldiers and officers in the Combat Corps understand this logic. Understanding fosters an appreciation of the *'how'* and *'why'* of SCS modernisation. Furthermore, comprehension of this logic has the potential to facilitate *'bottom-up'* capability development. Arguably, this driver of modernisation is the most effective.

Key SCS Modernisation Initiatives

Army is either pursuing or delivering a raft of modernisation initiatives to ensure world's-best SCS capability. These initiatives are founded on the logic framework described previously. Each initiative will be discussed according to SCS sub system.

Lethality

The introduction of the EF88, and its associated target acquisition ancillaries, is spearheading optimisation of SCS lethality. Delivering from mid 2015, the EF88 has been described by those who have been involved in trials and initial issues as *'exceptional', 'robust', 'much lighter', 'unbelievably accurate', 'remarkably balanced, scalable and modular'* and *'a giant leap forward for Infantry.'*

While contract negotiations for its ancillaries are ongoing, T2D combatants will be issued the EF88 with a range of target acquisition devices particular to their role in their Fire Team, Brick, Joint Fire Team, Section, Platoon and Company. By example: Commanders and Marksman will receive an enhanced day sight (EDS), in-line thermal sight, bipod / foregrip and high-powered weapon torch. Grenadiers will employ the improved grenade launcher attachment (GLA), EDS and image intensification (I2) sight for low-light / night time target acquisition and engagement. Finally, Riflemen will be issued the ESD, I2 sight, weapon torch and bipod.

T2M combatants will receive the carbine variant with an EDS and foregrip. T3 combatant will employ the EF88 with EDS, foregrip with bipod, and for select combatants, the GLA.

A comprehensive description of the leading EF88 target acquisition ancillaries will be provided in the next edition of the Corps journal.

One of the most encouraging aspects of the EF88 is its potential for future development / refinement. Indeed, Army is already considering developments such as: extended picatinny rails, suppressors, man-marking munitions, ambidextrous firing and independent firing of the GLA by attaching to a stand-alone adjustable stock.

The long-awaited introduction of the Light Weight Automatic Grenade Launcher (LWAGL) will commence in 2016. Army has selected the **General Dynamics Mk 47** as its LWAGL. In-service with elements of United States SOCOMD, this platform, and its fire control system and air-burst ammunition barrel, will be delivered to SASR, 2 Commando Regiment, Infantry Battalion Defensive Fire Support Weapons Platoons (DFSW) and Artillery Regiment Gun Lines. It is anticipated that the LWAGL will be a capability '*game changer*' for gun line defence and Infantry's contribution to the overall combined arms capability.

Survivability

Aside from the delivery of the improved Army Military Combat Uniform (AMCU), undergarments and an ongoing trial of new combat / tropical boots, the key modernisation initiative addressing the needs and requirements of the SCS Survivability sub-system is the new **Soldier Combat Ensemble (SCE)**.

Army's new SCE has been deemed by recipients to be '*excellent*', '*phenomenal*', '*the best equipment issued by the Army in 30 years*' and '*finally allowing my Section and I to train as we fight.*'

The SCE comprises a light-weight combat helmet, eye protection, active hearing protection that integrates with Soldier Personal and other radios, Tiered Body Armour System (TBAS) with training body armour of the same size and weight as live armour, new belt webbing and an array of standard and specialist pouches and packs for scalable load carriage.

The SCE is being delivered to all Combat Brigades and select elements of Army's Support Brigades. The rationale applied for its basis of issue is to

provide it to the Fighting Echelon in the first instance.

Army is also seeking to enhance the survivability of select Infantry and Artillery personnel and high-value equipment such as Armoured Fighting Vehicle, tactical headquarters, stores dumps and ground based air defence systems by evaluating a number of **multi-spectral signature reduction systems**. This initiative will be discussed in more detail in subsequent editions.

Mobility

The new SCE being delivered to Army is designed to optimise the balance between survivability and mobility of combatants carrying mission essential equipment. However, the key modernisation initiative designed to enhance RAlnf and RAA T2D mobility is the **Dismounted Support Vehicle (DSV)**.

Army is also seeking to enhance the survivability of select Infantry and Artillery personnel and high-value equipment ...

The DSV is designed to lighten the T2D combatant's load. That is, reduce the mission essential equipment he / she carries by providing an air / sea portable light-vehicle platform that carries a large proportion of this mission essential equipment. It is anticipated the introduction of the DSV will finally *crack the code* for the extreme load carriage challenge in RAlnf and RAA. It is expected the DSV will offer both Corps the opportunity to significantly reduce the weights being carried by soldiers. It is anticipated that DSV will also increase the effectiveness and efficiency of Infantry Company A1 echelons and battlefield clearance teams. The 3rd Brigade will trial DSV variants in early 2016 prior to Army determining the solution to introduce into service.

C2SA

Arguably, some of the most dynamic capabilities being pursued and delivered for SCS address the C2SA sub-system.

The miniature Unmanned Aerial Systems (UAS) are the headline, and perhaps most exciting, capability being introduced to enhance SCS dismounted SA. The **Prox Dynamics' PD-100 Black Hornet** is the smallest mil-spec unmanned aerial system on the market. Weighing 18 grams, it can fly for 25+ minutes out to a range of 2.5 km. The system is equipped with either thermal or day cameras,

capable of providing the operator with full motion video or still images. The PD-100 Black Hornet is virtually undetectable when used and has been issued to Cavalry Troops, Infantry Combat Teams and Reconnaissance Sniper and Surveillance (RSS) Platoons within 7 Brigade for evaluation. The outcomes of this evaluation may lead to broader introduction into service.

AeroVironment's Wasp AE is the only waterproof mil-spec UAS on the market, making it suitable for land, special and amphibious operations. Weighing 1.3 kg, it can fly for 50 minutes out to a range of over 5 km.

The man-packable system is fitted with a dual day / infra-red camera, which can stream video to the operator and supported commander.

The Wasp AE has a number of highly advanced software features that have been developed in close consultation, over many years, with the USMC. It has been issued to RSS Platoon within 7th Brigade as well as NORFORCE for evaluation. As with the Black Hornet, the outcomes of this evaluation may lead to broader introduction into service.

The miniature Unmanned Aerial Systems (UAS) are the headline, and perhaps most exciting, capability being introduced ...

While there is some ways to go prior to introduction into service, Army remains committed to providing T2D from RAlnf and RAA with a suitable **Battle Management System – Dismounted (BMS-D)** to enhance their C2SA. The BMS-D will offer voice and data networking to assist commanders in rapid decision making.

Army is well aware that the first evolution of BMS-D was not suitable for T2D combatants. In short, it was too heavy and unwieldy. The new BMS-D being pursued by Army will emphasise Size Weight and Power as key design tenants. Consequently, a smaller and lighter tactical display will form part of the new system. Furthermore, the unwieldy cabling of the legacy system will also be addressed.

BMS-D version 2 are due to be fielded from 2018 and will undergo comprehensive testing from end users prior to entry into service.

Sustainability

While future SCS projects will scrutinise improvements to power management and other sustainability issues, Army is seeking to iteratively update its field equipment items. Those items

currently being examined for improvement include: torches, helmet torches, sleeping systems, combat stretchers and water purifiers. More to follow in subsequent SITREPs.

Training and Education

Army is turning its attention to investing more deliberately and holistically in the Training and Education sub-system of the SCS. Over the next six months this will likely become most evident in the design, delivery and systems acquired to enable the enhancement of combat shooting, combined arms shooting and reality based training for Army's combat soldiers. More to follow!

Enhancing Human Performance

The nucleus of the SCS is the soldier. While many modernisation initiatives seek to deliver leading equipment, the most important capability Army need to deliver, or train / develop, are world-class combatants.

Recently, Army has turned attention and resources towards identifying how we can best produce combat soldiers that can repeatedly outsmart, outperform and outlast a lethal, agile, adaptable and well-connected adversary. Achieving this outcome is not easy. Nor is it automatic. Indeed, it is both incredibly difficult and inherently 'mandraulic'. Achieving smarter, faster, stronger combatants compels extraordinary courage and commitment to methodically question the current approach, meticulously interrogate new / better ways to produce world-class soldiers and then have the discipline to fully implement them until we succeed. *If we are to produce extraordinary soldiers, we need to be extraordinary in our pursuit of what is the most critical modernisation initiative.*

In order to enhance human performance of the combatant, Army is considering a range of initiatives including: immersive and adaptive training technologies, nutrition technology, load sharing equipment for the combatant, cultural and language trainers, individual physiological state monitoring technologies and the concept of Combat Resilience Centres being established in key geographic locations around Australia. Army is also sponsoring an industry day in October 2015 that investigates industry-led initiatives that may be leveraged by Army to enhance the performance of combat soldiers in the near and far. More to follow.

The quest for constant improvement

A perennial, and often vexing, modernisation necessity is the quest for constant improvement and the avoidance of obsolescence. The rate of technology advancement and tempo / variety of bottom-up capability initiatives means that cutting-edge capabilities delivered today invariably lose their technical advantage as soon as tomorrow dawns. This is the world we live in. As individuals, we confront the same reality when the personal fixed-contract smart phone we acquire is outsmarted by the latest device.

It is unrealistic to expect Army to be able to update most capabilities as quickly as many of us progress to the latest smart phone. However, what Army must do is constantly seek ways and means to either improve or replace current capabilities. Doing so mitigates the inexorable loss in capability advantage over time. One could sum this up neatly and remark that in the capability space, Army *'must never rest on its laurels.'*

The good news is that Army is not *'resting on its laurels.'* Army is not backslapping itself about the EF88, SCE and other leading capabilities identified in this article. Rather, it has built, or is building, *'spiral development'* features into many of these modernisation initiatives. This will ensure that the leading SCE, weapons, ancillaries, radios and human performance initiatives it delivers from 2015 are not obsolete in 2025. Furthermore, Army is seeking greater flexibility in the way it delivers future capability projects such that it can prove more agile in evaluating, and potentially introducing into service, new and dynamic equipment.

The evaluation of the BlackHornet and Wasp UAS provide good examples of how Army is pursuing constant improvement. Another recent example is the ~ \$15 million in spiral development being applied to the SCE being delivered to the Corps. This approach will yield improved helmets, ocular protection, hearing protection and load carriage equipment being delivered in 2016 compared to 2015. This quest of continual SCE improvement will be repeated, year-in, year-out.

Receiving leading equipment comes with enormous responsibility

There is no formula that promises *'Having world's best equipment = Having world's-best soldiers'*. This should come as no surprise to any combat soldier. It is true that world's best equipment *affords greater opportunity* to train / develop the world's best

soldiers. Frighteningly, it can also lead to a situation where one squanders opportunity and becomes the force *'with all the gear and no idea.'*

There is no formula that promises 'Having world's best equipment = Having world's-best soldiers'. This should come as no surprise to any combat soldier.

All combat soldiers shoulder responsibility in avoiding the fearsome situation described above. However, it is the tactical commanders within RAIInf, RAA and RAAC that shoulder the most. It is they who will determine whether or not we realise the opportunity afforded by world's best equipment to train / develop the world's best soldier. It is their courage, devotion, initiative and discipline, or lack thereof, which will largely determine capability success or squander.

Truthfully, we have missed the mark in the past. Like *déjà vu*, we have been in this situation before. By example: while Army will deliver world's best night fighting equipment to replace the in-service fleet in the coming years, it has been in this situation previously. Indeed, Army was issued the world's best night fighting equipment in 1999. The introduction of Ninox was a step-change in capability. It would be fair to say most of us would agree that we have not invested the courage, devotion, drive and discipline over the last 15 years to leverage this world's best equipment to become the world's best night fighters. We need to learn from this example and avoid a repeat across the suite of capabilities described in this article.

Importantly, this courage, devotion, drive and discipline must be instilled in the Corps' culture – and be exercised from soldier to commanding officer.

Conclusion

Truly it is a dynamic period for capability development for the SCS. This article validates the assertion that our combat soldiers and officers are progressively becoming the best, or at least amongst the best, equipped combatants in any Army – anywhere. Indeed, the Australian Infantry, Armoured Corps and Artillery soldier and officer are becoming far more lethal, mobile, protected, resilient and aware.

Being the best-equipped combat soldiers does not automatically result in having the best soldiers and officers. Only snake-oil merchants and rank

amateurs pedal such pseudoscience. Achieving world's-best capability compels courage, commitment, initiative and discipline to question how / why we do what we do and find, develop and implement ways to produce smarter, fitter and resilient combatants. In our combat Corps, the responsibility for achieving this starts at the tactical level – and not at Army Headquarters.

Army Headquarters will leverage the Corps journal to provide regular, bi-annual SCS capability development SITREPs. This will enable those in the Corps, and those that support it, learn, track, prepare for and influence the introduction into service of leading equipment designed to optimise SCS capability.

ADF 20 years behind US in preparing for drone-based warfare, expert says

Lateline ABC Television
By Margot O'Neill and Brigid Andersen

First posted Thu 21 May 15, 3:28pm
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Australia's Defence Force is up to 20 years behind the United States in preparing for a future conflict that will likely involve attacks from swarms of drones from the air and the sea, according to one of the Defence Department's own consultants.

Jai Galliot, a researcher at the University of New South Wales, said future war would also demand sophisticated satellite and cyber strategies to counter attacks on energy and communications infrastructure. He said the planned purchase of the Joint Strike Fighter jet and new submarines is "last generation".

"By the time we get the new order of subs they will be outdated definitely," said Mr Galliot, who is contracted to the Department of Defence to study the future of war in the Indo-Pacific. "Australia needs to think about the next generation of warfare and the fact that our enemies are already deploying highly sophisticated drone technology. "We need to have drones in the air, under the water and on the ground."

At a recent future of war conference in the US, former fighter pilot and drone expert Mary Cummings questioned whether the Pentagon was also too focused on big weapons systems. "Now we have 3D printers and I have students who over a weekend can build a drone," she said.

"When you can put a million drones in the air for let's just say, a couple of hundred thousand dollars - and China could easily do that - you have to start thinking about a whole new way of fighting a war. "It's not the big monolithic platforms, but it's these very cheap drones that can just keep coming."

Underwater drones predicted to change role of submarines

Peter W Singer, a strategist at the New America Foundation and former senior fellow at the Brookings Institute in Washington, said 80 different countries already equipped their militaries with drones, plus they were being used by non-state actors like Islamic State, paparazzi and farmers.

He said the human role in controlling drones was also changing. "They can do things like take off and land on their own, fly mission waypoints on their own, ID targets on their own," he said. "They're not able to put it all together and carry out the entire mission on its own - but that's coming."

Mr Singer has co-authored a novel, *Ghost Fleet*, imagining what armed conflict could look like between China and the US. "Unlike World War II, we'll see battles in these two new places - outerspace and cyberspace," he said.

"Whoever wins those battles, whoever controls the heavens, and by that I mean communication satellites, surveillance, navigation and GPS, all of the wars on land and sea depend on that. "The same thing goes for cyberspace: it is the lifeblood for modern day battlefield, whoever controls it or who controls access to it will dominate the physical fight."

Drones are spreading not just across the skies, but into the sea, with underwater drones predicted to challenge the role of submarines.

The Pentagon is even researching how it could bury launch pods in the deep sea for years at a time, before triggering them to rise to the surface and release pre-packed drones.

Robotic mules are already being developed to lighten the load for infantry and human-like robots that can climb stairs and run are also being tested.

A federal parliamentary committee is examining the potential use for unmanned vehicles or drones across the Army, Navy and Air Force. It is due to report at the end of June.

MESSAGE

SUBJ: MOUNT SCHANCK TROPHY COMPETITION

A. X4861000 MOUNTSCHANCK TROPHY COMPETITION DATED 19 NOV 14

B. X4897885 MOUNT SCHANCK TROPHY- COMPETITION GUIDANCE

1. THE AIM OF THIS MESSAGE IS TO FINALISE THE ARRANGEMENTS AND SCHEDULE FOR THE MOUNT SCHANCK TROPHY 15 (MST).

2. AT REF A, COMD 2 DIV RE-ESTABLISHED THE MST AS A COMPETITION FOR THE LIGHT BATTERY (LT BTY) WITHIN 2 DIV. THE COMPETITION WILL TAKE PLACE ANNUALLY AS PART OF THE NORMAL LT BTY TRAINING PROGRAM AND AIMS TO ASSIST THE LT BTYS IN MAINTAINING AND CONTINUING TO DEVELOP THE JFIRES CAPABILITY OUTPUT IN SUPPORT OF THE FORGEN CYCLE.

3. THE COMPETITION WILL BE CONDUCTED IAW REF B AND COMMENCE IN MAY 15.

4. THE SCHEDULE (AS NOMINATED BY THE LT BTYS IAW REF A) FOR THE COMPETITION IS:

- **4.A.1. 3 LT BTY 14-17 MAY 15.**
- **4.A.2. 6/13 LT BTY 29-31 MAY 15.**
- **4.A.3. 23 LT BTY 14-16 AUG 15.**
- **4.A.4. 7 LT BTY 22-23 AUG 15.**
- **4.A.5. 2/10 LT BTY 23-25 OCT 15.**
- **4.A.6. 5/11 LT BTY TBC.**

5. LT BTYS ARE TO:

- **5.A. CONFIRM THE LOCATION OF THEIR ACTIVITY.**
- **5.B. SEND A COPY OF THEIR RANGE DETAIL (INCLUDING THE TRACE) AND RANGE INSTRUCTION TO THE SO2 JFIRES NLT TWO WEEKS BEFORE THE COMMENCEMENT OF THEIR LFX.**
- **5.C. PROVIDE A SUITABLE VEH (S) FOR THE EVAL TEAM (4 PERS).**
- **5.D. INCLUDE THE EVAL TEAM IN THEIR RATION PLAN.**
- **5.E. NOMINATE A POC TO FINALISE ARRANGEMENTS NLT 4 WEEKS BEFORE THE COMMENCEMENT OF THEIR LFX.**

6. THE EVAL TEAM WILL BE MADE UP AS:

- **6.A. SO1 JFIRES**
- **6.B. SO2 JFIRES**
- **6.C. SM JFIRES**
- **6.D. SM ARES JFIRES.**

7. THE HOR WILL MAKE A FINAL DISCUSSION ON THE WINNER OF THE COMPETITION. THE WINNING LT BTY WILL BE PRESENTED WITH THE TROPHY AT THE RAA CONFERENCE IN EARLY NOV 15.

8. POC

- **8.A. SO1 JFIRES, LTCOL WARWICK YOUNG, TEL: 02 9349 0628**
- **8.B. SO2 JFIRES, MAJ STU SEABROOK, 0476 265 501
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9. RELAUTH G3 HQ 2DIV

10. BDES TO ACK.

Personnel & Training

Senior Officer Appointments & Promotions

The Chief of the Defence Force is pleased to announce the following senior officer appointments and promotions, which are planned to occur from the nominated month. All are subject to ongoing work being undertaken under the auspices of the First Principles Review implementation that may result in a reduction in the number of Senior Leadership Group positions across the Department.

- Head Land Systems – Major General David Coghlan from December 2015.
- Director-General Plans – Brigadier Craig Furini from March 2016.

CO & RSM Appointments

Chief of Army (CA) has selected and is pleased to announce the following CO and RSM appointments for 2016:

- Lieutenant Colonel PC Grant – CO 20th STA Regiment
- Lieutenant Colonel AJ Payne – CO 4th Regiment RAA
- Lieutenant Colonel SJ Fletcher – CO/CI School of Artillery
- Warrant Officer Class One MJ Sullivan – RSM Headquarters 1st Brigade
- Warrant Officer Class One AM Hortle – RSM Headquarters 6th Combat Support Brigade
- Warrant Officer Class One DT McGarry – RSM RAA Combined Arms Training Centre

- Warrant Officer Class One JG Jarvis – RSM 16th Air Land Regiment
- Warrant Officer Class One DJ Sinclair – RSM 8th/12th Regiment RAA
- Warrant Officer Class One DP Lindsay – RSM School of Artillery

CA congratulates all officers and warrant officers on their selection.



DATE CLAIMER

RAA

LIAISON LETTER

Autumn 2016

Next Edition Contribution Deadline

Friday 12th February 2016

LONG TAN

THE START OF A LIFELONG BATTLE

"A must read for every Australian"

"A truly remarkable story"

About the Book

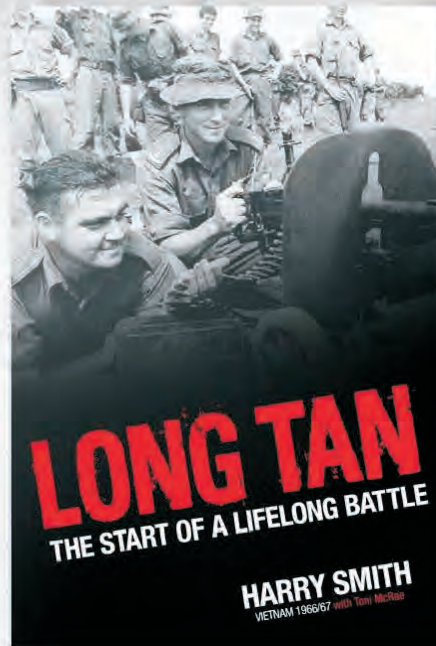
On the afternoon of 18 August 1966, just five kilometres from the main Australian Task Force base at Nui Dat, a group of Viet Cong soldiers walked into the right flank of Delta Company, 6 RAR. Under a blanket of mist and heavy monsoon rain, amid the mud and shattered rubber trees, a dispersed Company of 108 men held its ground with courage and grim determination against a three-sided attack from a force of 2,500 Viet Cong and North Vietnamese Army troops.

When the battle subsided, 17 Australian soldiers lay dead, 24 had been wounded of which one died 9 days later. Battlefield clearance revealed 245 enemy bodies with captured documents later confirming the count at over 500 enemy killed and 800 wounded.

These men were led by a gruff and gusty perfectionist, Major Harry Smith. Now, some 47 years after the battle, Harry tells his story for the first time. But this book is more than just an account of a historic battle. Harry Smith takes his readers on an extraordinary journey — one that ultimately reveals a remarkable cover-up at the highest military and political echelons.

Written in partnership with award-winning journalist Toni McRae, *Long Tan A lifelong battle* is also Harry's life story and portrays his many personal battles, from failed marriages to commando-style killing; from a horrific parachute accident through to his modern-day struggles with bureaucracy for recognition for his soldiers. Harry's battles are tempered by his love of sailing, where he has at last found some peace.

Long Tan A lifelong battle portrays the wrenching, visceral experience of a man who has fought lifelong battles, in a story that he is only now able to tell. Harry can still hear the gunfire and smell the blood spilt at Long Tan. For him, the fight continues.



Key Selling Points:

- The Battle of Long Tan will be a major feature film scheduled to commence in 2015. Proving it's still has major interest internationally.
- This is the first time Harry Smith SG, MC has told his story.
- Perfect Father's Day Gift.
- Harry is the most decorated former 1952 National Serviceman.
- One of the most bitterly fought clashes of the Vietnam War.
- One of the few battles in the world to be won against such overwhelming odds.

Marketing Highlights:

- Extensive national PR campaign targeting strong exposure across the 49th anniversary of the Battle of Long Tan on 18 August.
- Major national PR Campaign across TV, print and radio.
- PR will also link in with the Movie announcement and teaser campaign to commence later this year.

Specs

Author:	Harry Smith
ISBN:	978-1-922132-32-1
Publisher:	Big Sky Publishing
Release date:	August 2015
Format:	PB 155mm x 230mm
Pages:	352
Price (incl. GST):	\$29.99

Publisher – Big Sky Publishing

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[See Membership Form in Cannonball]

Cannonball (Official Journal)

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Fort Scratchley Historical Society

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RA Association

Website: www.forums.theraa.co.uk.php

RAA Unit Websites

RAA and other unit websites maybe accessed via the Australian Army website.

<http://www.defence.gov.au/army/RRAA>

<http://intranet.defence.gov.au/armyweb/Sites/RRAA>

Important Websites

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MAJGEN D.P. Coghlan	COL F.G. Colley	LTCOL J.H. Catchlove
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MAJGEN G.P. Fogarty	COL G.C. Hay	LTCOL C.F. Dodds
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MAJGEN S.N. Gower	COL C.B.J. Hogan	LTCOL L.D. Ensor
MAJGEN J.P. Stevens (see note)	COL J.H. Humphrey	LTCOL E.P.M. Esmonde
MAJGEN P.B. Symon	COL C.H. Hunter	LTCOL J. Findlay
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BRIG J.R. Cox	COL D.J. Kelly	LTCOL R.J. Foster
BRIG G.W. Finney (see note)	COL S.N. Kenny	LTCOL N.J. Foxall
BRIG C. D. Furini	COL W.T. Kendall	LTCOL A.W. Garrad
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BRIG P.R. Kilpatrick	COL I.A. Lynch	LTCOL P.D. Harris
BRIG R.A. Lawler	COL R.M. Manton	LTCOL M. Harvey (RNZA)
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MAJ D.E. Jones
MAJ J. Kaplun
MAJ J.B. Kelly
MAJ J.A. King
MAJ D. Klomp
MAJ M.D. Laurence
MAJ H. Lenard
MAJ A.M. Ludlow
MAJ R.S. McDonagh
MAJ A.R. McDonell
MAJ G.D. Metcalf
MAJ M.W. Middleton
MAJ G.K. Milic
MAJ D.R. Morgan
MAJ S.R. Nebauer
MAJ D.T. O'Brien
MAJ L.W.L. Partridge
MAJ P.J. Prewett
MAJ V.J. Rae
MAJ S.G. Rohan-Jones
MAJ W.A. Ritchie
MAJ P.S. Richards
MAJ K.F. Schoene
MAJ L.J. Simmons
MAJ A.H. Smith (see note)
MAJ P.W. Spencer

MAJ M.C. Squire
MAJ A.E.R. Straume
MAJ M. Taggart
MAJ W. Tapp
MAJ J.D. Thornton
MAJ A.C. Turner
MAJ M.L. Van Tilburg
MAJ T.W. Vercoe
MAJ M. St C. Walton
MAJ C.V. Wardrop
MAJ P.R. Widelewski
CAPT M.A. Pasteur (AAAvn)
CAPT P.J. Smith
CAPT P.J. Watkins
CAPT P. Wertheimer
LT J.F. Henry
LT S.L. Shepherd
WO1 D.G. Annett
WO1 D.W. Bowman
WO1 K.J. Browning (see note)
WO1 L.A. Cooper
WO1 B.A. Franklin
WO1 E. Harkin
WO1 G.A. Jebb
WO1 M.I. Johnson
WO1 M.A. Johnston
WO1 T.L. Kennedy
WO1 D.R. Lehr
WO1 P.A. Matthysen
WO1 B.J. Stafford
WO1 R.J. Thompson
WO1 M. Vandyke (see note)
WO1 P.T. Washford
WO1 C.F.J. Watego
WO1 G.J. Webster
WO2 D. Bannerman
WO2 M. Broughton
WO2 P. Carthew
WO2 M.R. Dawson
WO2 R.T.B. Hay
WO2 J.J. Hennessy
WO2 D.G. Ogden (see note)
WO2 A. Pavlovich
WO2 R.N. Skelton
SSGT R.W. Morrell
SSGT E.J. Paddon
SGT J. Nield
SGT G.V. Saint
SGT D.H. Wood
Mr C.J. Jobson
Mr L.A. Manning

Note:

COL M.C. Crawford, COL E.D. Hirst,

MAJ A.J. Balsillie and MAJ A.H. Smith have paid three life subscriptions. LTGEN B.A. Power, MAJGEN T.R. Ford, MAJGEN J.P. Stevens, MAJGEN J.D. Stevenson, MAJGEN J. Whitelaw, BRIG G.W. Finney, BRIG R.K. Fullford, BRIG N.D. Graham, BRIG J.R. Salmon, COL A.R. Burke, COL A.D. Watt, LTCOL J.E. Box, LTCOL J.H. McDonagh, LTCOL D.M. Murphy, LTCOL G.K. Phillips, MAJ J.B. Evans, WO1 K.J. Browning, WO1 M. Vandyke and WO2 D.G. Ogden have paid two life subscriptions.

Associations

RAA Association (Tas)
RAA Association (Qld)
RAA Association (North Qld)
RAA Association (Vic)
RAA Association (SA)
RAA Association (NSW)
RAA Association (NSW) - Newcastle Branch
105th Field Battery Association
107 (Field) Battery Association
Fort Lytton Historical Assoc
RAA Retired Officers of South East Queensland
Australian Air Defence Artillery Association
13th Battery Association

Deceased Benefactors

Sir Roden Cutler
MAJGEN T.F. Cape
MAJGEN G.D. Carter
MAJGEN P. Falkland
MAJGEN R. G. Fay
MAJGEN J.D. Stevenson (see note)
MAJGEN J. Whitelaw (see note)
BRIG R.K. Fullford (see note)
BRIG A.G. Hanson
BRIG R.Q. Macarthur-Stranham
BRIG I.J. Meibusch
BRIG J.R. Salmon (see note)
COL M.C. Crawford (see note)
COL M.J. Kingsford
COL G.M. Salom
LTCOL R.H.E. Harvey
LTCOL P.L. Overstead
LTCOL G.K. Phillips
LTCOL G.W. Tippetts
MAJ M. Dawson
MAJ J.B. Evans (see note)
MAJ A.A. Thwaites
CAPT A.E. Sheridan

RAA Gunners Fund – Needs Your Support

Introduction

The RAA Gunners' Fund is designed to provide a source of funds that can be utilised for the benefit of all Gunners. One of the most important uses for these funds is to support requests from RAA units and organisations to assist in the ongoing preservation and promotion of the Regimental heritage. Other worthy goals that this funding supports, is not limited to, but includes:

- support RAA extra-Regimental activities,
- encourage RAA Officers and Soldiers who excel in their profession,
- support activities that benefit RAA personnel, not normally funded by public money,
- safeguard, maintain and purchase items of RAA Regimental property,
- preserve RAA heritage and history, and
- record RAA Operational service since deployments began in the 1990s.

The Regimental Committee cannot achieve these very worthy goals without the support of individual members and organisations within the Gunner community. All ranks are encouraged to make a financial contribution to the Gunners' Fund. Since the establishment of the Gunners' Fund the option to take out a 'Life Subscription' is only available to retired members and serving Part-time (Reserve) members. Whilst a 'Life Subscription' absolves the subscriber from being asked for any further financial contribution they are most welcome to make additional contributions should they desire to further support the Royal Regiment. The list of life subscribers is published in the Liaison Letter and they automatically receive a complimentary copy.

Recent Projects

Over the years the Gunners' Fund has supported a wide range of requests for financial support, including some of which are ongoing such as insurance and maintenance of the AIF and Mount Schank Trophies. It is worth noting that the sums of money requested from the Fund are generally significant and therefore can only realistically have any chance of being provided if each and everyone of us support the Fund. Projects supported by the Fund include the allocation of:

- \$2,500 to 8th/12th Medium Regiment to assist the Regiment to build a Regimental Memorial to coincide with the Regiment's 30th anniversary celebrations;

- \$500 to 131st Surveillance and Target Acquisition Battery to improve the Battery memorial and add a plaque to mark the 50th Anniversary of the unit and its name change from 131st Divisional Locating Battery;
- \$1,000 to 1st Field Regiment for its 50th anniversary celebrations;
- \$1,000 to 4th Field Regiment for its 40th anniversary celebrations;
- \$1,500 for shield to be held by winner of Mount Schanck trophy;
- \$1,000 to 1st Field Regiment to mark 50th anniversary of 105th Field Battery, 50th anniversary of commitment to Malaya and 40th anniversary of commitment to South Vietnam;
- \$1,000 to complete the Major General T. Cape Bequest to the Regimental officer's mess;
- \$5,000 to commission a painting to mark the withdrawal from service of Rapier;
- \$6,000 to support commissioning a painting to mark the RAA/RA deployment in Afghanistan;
- \$2,500 towards the Anti-Aircraft and Air Defence Memorial at 16th Air Land Regiment;
- Purchase of RAA Memorial Walk Pavers for Warrant Officer Class Two KB Dolan MG & Sergeant D Robertson MG in recognition of their bravery in Afghanistan;
- 53 Battery World War Two Battery Flag restoration and preservation;
- Presentation of a framed miniature RAA Standard with supporting service history to those who have achieved the milestone of 40 years service.
- The on-going Royal Military College Graduation Artillery prize which is approximately \$100 per graduation; and
- Annual Regimental Officer, Warrant Officer and Sergeant farewells.

Subscriptions

The recommended new rate of contribution is deemed as **\$260.00** for a life subscription and the following sliding scale based on rank for an annual subscription for Army Reserve and Retired Members:

- MAJ and above and WO1 – **\$26.00**,
- CAPT, WO2 and SGT – **\$19.00**,
- LT, BDR, LBDR and GNR – **\$13.00**.

For Full-time (ARA) members, the fortnightly scale is:

- MAJ and above and WO1 – **\$2** per pay
- CAPT, WO2 and SGT – **\$1.50** per pay
- LT, GNR, LBDR and BDR – **\$1** per pay

It is understood that some individuals may not be in a position to meet the suggested scale, therefore any contribution will be gratefully appreciated in helping to continue the good work the Fund has provided the Regiment over many years.



RAA

Gunners' Fund Subscription

Categories

- Fortnightly subscription by direct debit for serving members.
 - WO1, MAJ and above: \$2.00 per pay ● CAPT, WO2, SGT: \$1.50 per pay
 - LT, BDR, LBDR, GNR: \$1.00 per pay
- Annual subscription for Army Reserve and retired members.
 - WO1, MAJ and above : \$26.00 p/a
 - LT, BDR, LBDR, GNR: \$13.00 p/a ● CAPT, WO2, SGT : \$19.00 p/a
- Fully paid life subscription (available to only Army Reserve and retired members).
 - All ranks \$260.00

Annual Gunners' Fund Prize Draw

Annual gunners fund prize draw for all paid up/current members as of 30 June each year (excludes life subscribers).

Payment Method

(Please tick)

- Enclosed is my/our subscription to the RAA Gunners' Fund
- A receipt is required
- Paying by **cheque**. Please return this form with a cheque made payable to 'RAA Regimental Fund' and addressed to: MAJ John Batayola, SO2 HOR, School of Artillery, Bridges Barracks, Puckapunyal VIC 3662.
- Paying via **electronic funds transfer (eftpos)**.*

If using a bank or credit union the following is required:

Credit Union: Australian Defence Credit Union (ADCU)
Account Name: RAA Regt Fund
BSB: 642 170
Account Number: 526805

Rank/Initials: _____ [BLOCK letters please]

Surname: _____
(or Association)

Address: _____

_____ P/Code: _____

Email Address: _____

Telephone: _____ Mobile: _____

* The description or reference must include organisation (i.e. mess or association) or initials and surname and the word 'subscription'. It is requested that you email john.batayola@defence.gov.au and advise him of your contact details when making a direct payment.

● For further information contact Major John Batayola on his mobile 0400 854 323 ●



Royal Regiment of Australian Artillery **Regimental Shop**



RAA Items

- Silk ties
- Berets and badges
(officers and ORs)
- Socks
- Cuff links
- Caps
- Silk scarves

General Items

- Stubbie holders
- Polo shirts
- Sports wear (basic)

Field Equipment

- Knives and tool selection
- Alice pack frames
- Dive bags
- Hydration packs
- Jet boilers
- Goggles
- Gloves
- Torches
- Sleeping mats

New Stock

Check out the latest deals on the SOARTY web page
<http://intranet.defence.gov.au/armyweb/Sites/ARTYSCH/comweb.asp?page=28046&Title=Regimental>

For Information and Orders:

School of Artillery, Bridges Barracks

Contact Details:

Email: RAACorps.Shop@defence.gov.au

RAA berets and badges
(officers and ORs)
RAA badge \$7.00/\$10.00
RAA beret \$20.00

RAA caps \$13.00

RAA ties \$35.00

RAA cummerbund \$40.00

RAA scarf \$35.00

RAA cuff links \$20.00

RAA socks \$10.00

Payment Methods:
1. In store - Cash only
2. Online - Bank transfer
BSB No: 803-205
Acct Name: RAA Corps Shop
Acct No: 20524995
3. BPay - Not applicable

Postage:
(by arrangement with postage fees to apply)

Examples
(pre-paid standard, non express and Australia wide)
Small pre-paid parcel (500g) - \$8.25
Medium pre-paid parcel (3kg) - \$13.40
Large pre-paid parcel (5kg) - \$16.70

RAA Polo shirts \$30.00
RAA Jumpers \$50.00

Royal Regiment of Australian Artillery
Catalogue

Contact Details:
Email: RAACorps.Shop@defence.gov.au
<http://intranet.defence.gov.au/armyweb/Sites/ARTYSCH/comweb.asp?page=28046&Title=Regimental>



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3	Director Royal Artillery Liaison Letter – 18 October 1954+
4	Director Royal Artillery Liaison Letter – 24 November 1954+
5	Director Royal Artillery Liaison Letter – February 1955+
6	Director Royal Artillery Liaison Letter – 31 May 1955+
7	Director Royal Artillery Liaison Letter – 30 September 1955#
8	Director Royal Artillery Liaison Letter – 20 January 1956+
9	Director Royal Artillery Liaison Letter – 18 June 1956+
10	Director Royal Artillery Liaison Letter – 26 November 1956#
12	Director Royal Australia Artillery Liaison Letter – 24 February 1957+
13	Director Royal Artillery Liaison Letter – 26 November 1957#
14	Director Royal Artillery Liaison Letter – 30 April 1958#
15	Director Royal Artillery Liaison Letter – 28 November 1958+
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17	Director Royal Artillery Liaison Letter – January 1960#
18	Director Royal Artillery Liaison Letter – 29 July 1960#
19	Director Royal Artillery Liaison Letter – 17 February 1961#
20	Director Royal Artillery Liaison Letter – 6 November 1961+
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22	Director Royal Artillery Liaison Letter – October 1962#
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82	Royal Australian Artillery Liaison Letter 2014 – Spring Edition+
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Australian Gunner Magazine

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2	Australian Gunner – Vol. 1.No. 2*
3	Australian Gunner – Vol. 2 No.1 – September 1979*
4	Australian Gunner – March 1980*
5	Australian Gunner – December 1980*
6	Australian Gunner – May 81*
7	Australian Gunner – November 81*
8	Australian Gunner – The Official Journal of the Royal Regiment of Australian Artillery – March 1997*

Miscellaneous Regimental Publications

	<i>Title</i>
1	DARTY Personnel Notes – December 1969#
2	Royal Australian Artillery Personnel Notes – 1978#

Note:

*Copy held by SO to HOR

Copy held by Puckapunyal Area Library

+ Copy held by HOR at School of Artillery

@ Not available to HOR at School of Artillery

RAAHC

NEEDS YOUR SUPPORT



The Royal Australian Artillery Historical Company needs Your Help to Support the Preservation and Promotion of Artillery History and Heritage and the Management of the Regiments Collection Nationally



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