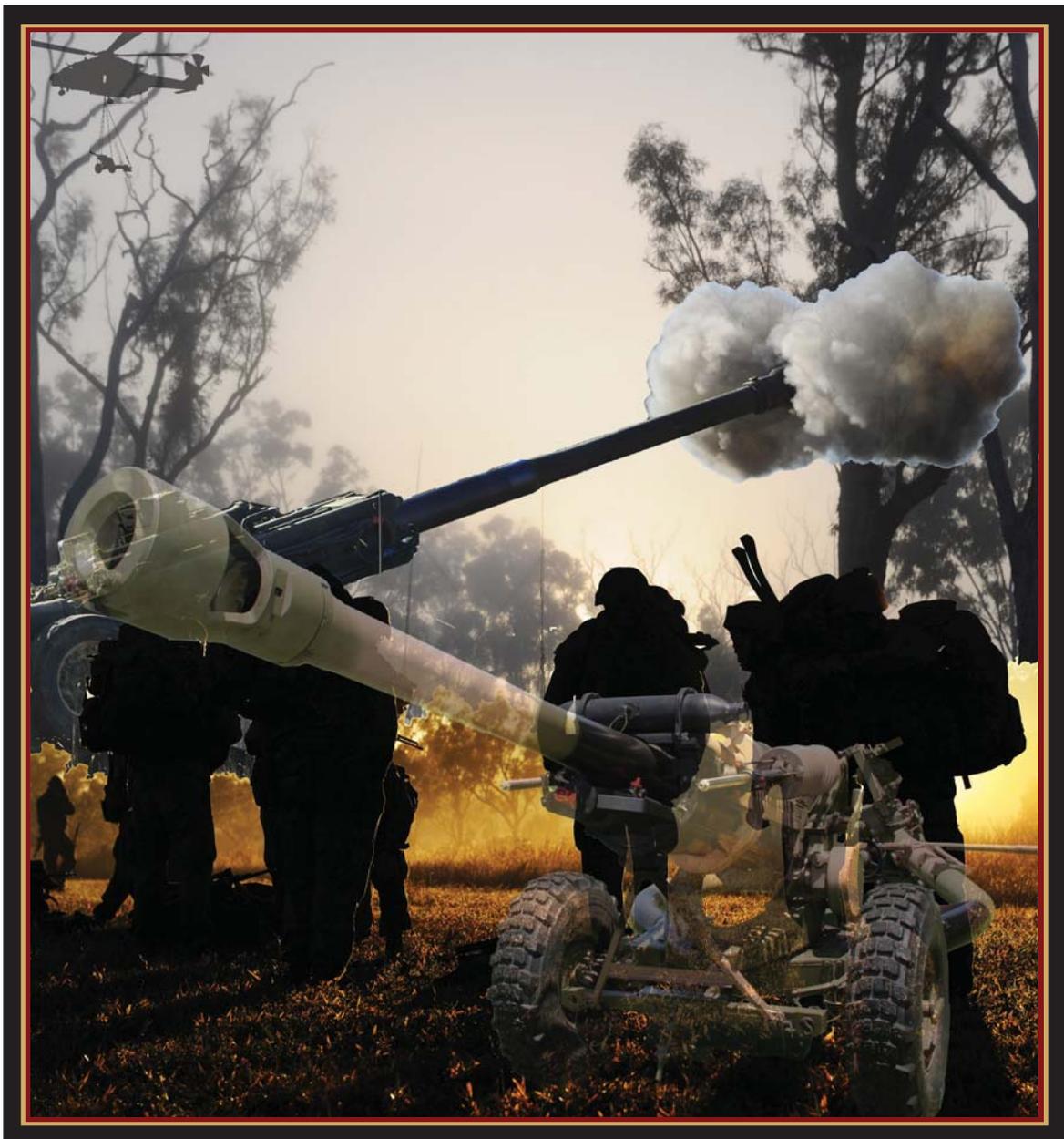


**The
Royal Australian Artillery**

LIAISON LETTER

Autumn 2015



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

First Published in 1948



RAA LIAISON LETTER

Autumn Edition 2015

Incorporating the
Australian Gunner Magazine

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NEXT EDITION CONTRIBUTION DEADLINE

Contributions for the Liaison Letter 2015 – Spring Edition should be forwarded to the Editor by no later than **Friday 14th August 2015**.

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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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 funds that can be used to benefit all Gunners.

One of the important purposes 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.

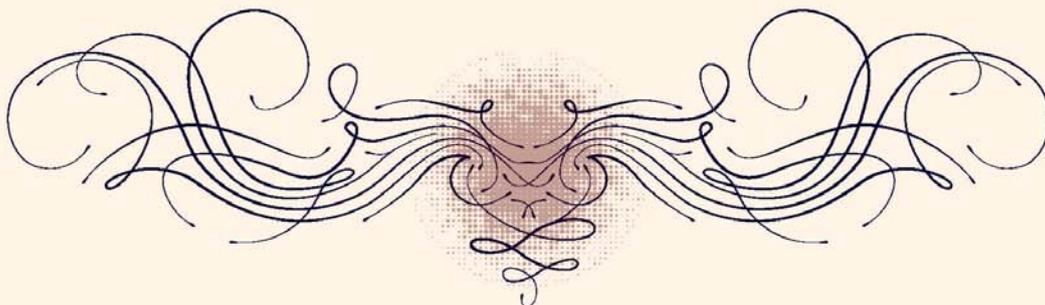
What does it do?

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.



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Regimental Sergeant Majors (Artillery Sergeant Majors)
All Ranks of the Royal Regiment of Australian Artillery
Associations and affiliated friends of the Regiment

SAINT BARBARA'S DAY GREETING 2014

2014 has provided some breathing space to enable the Royal Regiment to concentrate on developing the understanding and integrating our new capabilities within the Force Generation Cycle. It is also timely to think on our families and their continuing support to their partner's commitment to the Australian Defence Force. Each and every one of us is thankful to our partners, our immediate and extended families for their support of our chosen careers and we should acknowledge their support whenever we get the opportunity.

2015 will see the Regiment continue to evolve, with more opportunities to evolve the Air-Land concept, the Unmanned Aerial System, the Light Battery capability and Digital Fire Support. It remains both an exciting and challenging time for all of us regardless of rank and we continue to make good progress towards our goal of technical and tactical excellence.

This year saw a successful and gratifying Regimental Command Post Exercise, Regimental Conference and farewells from both the Officers and Sergeants Messes. The Command Post Exercise is important to the Gunner community as it allows us a greater understanding of the breadth of capabilities that is the digitised Fires system on a scale that was familiar in the past but is no longer so familiar. The Regimental Conference allowed us to discuss in detail some of the challenges we face with a view to a melding of ideas and the development of a common approach to aid resolution of the issues. The next RAA Liaison Letter will have an article on the conference topics. The Farewells allowed us the opportunity to acknowledge the achievements, commitments and dedication of a number of very senior Officers, Warrant Officers and Senior Non-Commissioned Officers and we thank each and every one of them for their past and hope for their continued support to the Royal Regiment into the future.

The Regimental Committee continues to develop a charter aimed at recognising the achievements of individuals and groups that belong to the Royal Regiment. This recognition will start with acknowledgement of those that excel on courses, the Turpie prize and for individual achievement for technical, unit or community excellence worthy of acknowledgement by all. The work of the Regimental Committee is supported as ever, by the Royal Australian Artillery Liaison Letter, I commend the publication to all of you and take this opportunity to seek articles for future publication. The Editor is keen to publish papers on technical, operational, customs and unit topics of interest to us all. The Mount Schanck Challenge trophy competition will be revived in 2015, news I am sure, that will interest the Light Battery command teams. There are indeed a number of great trophies and competitions that have fallen by the wayside over the years and we will look at opportunities to reinvigorate them.

Today, I ask you to celebrate Saint Barbara's Day bearing in mind the achievements and of 2014 and prepare yourself for the challenges ahead in 2015. I take this opportunity to congratulate those of you that will assume your appointments in January 2015 as Commanders of Units, Sub Units and Regimental and Battery Sergeant Majors. It is also a day where many are promoted to the next rank, and to you I pass on my congratulations for your ongoing commitment to the Regiment and Army.

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

Ubique



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Brigadier
Head of Regiment

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25 November 14

Army Blog Encourages Debate

ARMY has launched its first public blog focusing on ideas about land power, security challenges, modernisation and the future of land forces beyond 2020.

Director Future Land Warfare Col Andrew Hocking and his team are responsible for the day-to-day running of the blog, which is hosted on the Army website.

"The blog presents an excellent opportunity for Army personnel, academics and broader society to connect and engage online," Col Hocking said.

"It's a great way for soldiers and officers to contribute their opinions and hard-earned expertise to the land power and modernisation discussion. "Blog pieces and the associated discussion will directly inform the modernisation of Army."

The blog is designed to provide a discussion space for informed analysis, commentary, thoughts and ideas among military practitioners, interested stakeholders and subject matter experts.

Army welcomes submissions of around 300-800 words on future land warfare issues. Submissions should make an insightful and original contribution in the form of observation, experience, fact or opinion, with enough context to make it relevant and thought-provoking for a wider audience.

All Army members are encouraged to subscribe to the blog at www.army.gov.au/Our-future/Blog/Subscribe

Further information on Army's future can be found at www.army.gov.au/Our-future

You can also follow Future Land Warfare on Twitter: [@flwaustralia](https://twitter.com/flwaustralia)

Army News September 25, 2014

Editor's Comment



Welcome to the latest edition of the Liaison Letter. I am extremely pleased to report that members from across the Regiment have made the effort to record their personal views and / or unit experiences for this edition. I thank you all

because without your support we would not have a professional journal that is the envy of many throughout the Army.

The 'Professional Papers' section is probably the largest and most comprehensive that I can recall ever having the pleasure to read, review and publish. The strength of this section is not only the number of submissions and subject matter but the range of backgrounds, experiences, ages and ranks of those who have contributed. I encourage everyone to find the time to read all the papers that cover subjects from 'Enabling a Joint Fight in the Land Domain' to the 'M777A2 in the Australian Army's Future Conflicts' and just about everything in between including 'Counter Fires Radar in the Combat Brigade'; and 'Exploiting Network Digitisation'.

The 'Around the Regiment' section has been well supported with numerous contributions. Topics include the Regimental Conference and Farewells to a paper by Lieutenant Colonel Damian Hill, Commanding Officer 4th Regiment, on the evolution of his Regiment from 2008 to 2015.

... readers will recall that two of these are Messes and related standards and the silent rarely spoken about subject of mental illness.

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.

Over the years I have been known in my editor's comments to focus on one or more of my hobby

horses and readers will recall that two of these are Messes and related standards and the silent rarely spoken about subject of mental illness. As a consequence of some recent observations I will offer a few thoughts on both subjects.

This was straight out of 'Facebook' and those devotees who document everything they do from when they wake until they fall asleep and everything in between.

Recently I had the pleasure to attend a mixed dining-in night and I stress from the outset it was an enjoyable night of camaraderie as well as fine food and wine. What caught my attention as odd were the actions of some members during the dinner. I immediately was annoyed but on reflection perhaps it is me who has not moved with the times and accepted conduct at dinners can change. Ultimately I will leave everyone to make up their own mind, however I will shine a spotlight on two examples but there were more.

I observed a member take out his mobile phone and photograph the meals that had been placed in front of him and his spouse. This was straight out of 'Facebook' and those devotees who document everything they do from when they wake until they fall asleep and everything in between.

I then noticed a couple texting, out of eye sight of the dining president, either each other or to other members. Personally I thought the idea of attending a dinner was to engage those around you in conversation.

I was left with a feeling the dinner could have been conducted with a little more flare or polish. The old tradition of members (or their partners) moving after each course but ultimately returning to their original seats for the toasts seems to have been lost somewhere between generations. I always felt this was an excellent way for the members and their guests to get to know each other in a relaxed atmosphere.

I appreciate my observations are not 'War Stoppers' nor are they critical to the delivery of our 'Core' business of solving the gunnery problem, however I believe that a fundamental aspect of being a 'Gunner' that sets us aside from other Corps are our standards in all areas including technical, as well as tradition and heritage. It only a small point but sadly it is the thin edge of the wedge. We are in danger of having formal dinners so rarely that those

organising them will have to read a book to know how they are 'supposed' to be conducted including the unwritten traditions.

Unfortunately I did not see the recent ABC 4 Corners program that focused on veterans suffering from PTSD and their treatment by the Australian Defence Force. I did read the public statement issued by the Defence Leadership Team in response to claims made in the program. Whilst I commend the efforts made by Defence to address mental illness in recent years, I still feel, as an organisation culturally and empathy wise, we still do not fully 'get' the problem and therefore how to treat those who are suffering both medically and more broadly socially.

For those who have recovered from a mental illness, my observation is they are often welcomed back with a degree of apprehension, wariness and caution.

I noted that the senior leadership highlighted the amount of money spent by Defence on mental illness as an indicator or benchmark of how important addressing this problem was to us as an organisation. Personally I believe you can throw as much money as you like at a problem but it will not solve it unless the root causes and related problems are identified and addressed in an open and supportive manner. Recently I was speaking with someone involved with the Department of Veterans' Affairs focused on supporting those with PTSD. The concerning aspect from my conversation was that they felt the current PTSD problem was only the tip of the iceberg.

No matter how it is 'dressed up' I feel culturally there is still a stigma within Defence, and especially Army, associated with those who are brave enough to seek help for mental illness. It is important to recognise that suffering from a mental condition or illness does not mean the individual is in any way 'mad' or 'psychotic'. Rather just like any physical wound or injury there is an extremely high recovery rate.

When a person recovers from a physical injury there is a positive outcome for everyone concerned. Importantly the individual is generally permitted to re-enter their specific area of employment and are welcomed back by their colleagues. For those who have recovered from a mental illness, my observation is they are often welcomed back with a degree of apprehension, wariness and caution. As

an organisation despite all the resources being invested we do not seem to provide people the tools to deal with a person who has recovered or is recovering from mental illness when they return to the workplace.

I believe an individual returning to work does not want to be treated any differently to anyone else. Disappointingly my limited observation of these situations is the experience is exactly the opposite. Instead those around the person often walk on eggs shells and treat the individual with kid gloves for fear of creating a circumstance where the person may relapse. This approach is not healthy for everyone concerned.

Whilst I cannot substantiate this, I truly feel that once an individual has suffered from any form of mental illness while they continue to serve they are never free of the stigma. This shadow will follow them throughout the remainder of their military life and I am in no doubt it has a detrimental effect on their career progression and path.

If Defence and Army created a working environment that not only openly encouraged, but welcomed those experiencing the initial signs of mental illness to come forward and seek help, then a lot of the professional and social problems that are encountered would be averted. All too often the problem does not come to the notice of our leaders until it is far too late to avert which in the worse can be the loss of a life.

Changing tack in my view the establishment of the annual RAA Command Post Exercise was a very smart strategic decision by the RAA executive. Last year saw the second of these exercises held at the School of Artillery in the week prior to the Regimental Conference. This initiative has seen the Regiment for the first time in many years come together with the aim of coordinating and integrating our wide spectrum of artillery assets above task force level. If my recollection serves me correctly the last time this level of command post exercise occurred was when Headquarters 1st Divisional Artillery sponsored Exercise Iron Gauntlet.

Whilst not involved in the exercise I have discussed it with a number of participants and observers. I concluded that we still have a way to go to integrate our new digitisation advances in a manner that will ensure we are afforded the exponential capability return that we all believe will be delivered. I am in no doubt it happen but as a Regiment we need to dedicate the time and resources to ensure it

happens in a responsive time frame. An indicator of the need to work hard on exploiting this capability is that after a week the participants did not achieve fire planning between Regiments across task force boundaries. The foundations to do this in the future were established.

My last observation for this edition is minor but goes to the heart of expectations in this modern era of digitisation. Each year I ask DOCM to provide me detail on officers serving in the Royal Regiment and for those more senior with an artillery background. Despite the technology and computing power of Defence the provision of this information appears to become harder and harder each year. This year despite the best efforts of the Career Advisor Artillery, which I appreciated very much, he was unable to provide me a list of One Star and above officers with a Gunner background. One can quickly see why we have problems producing accurate lists of who served on operations when required.

The upshot of this situation was that I had to create my own list so I hope I have it correct and if I have omitted someone or recorded the information incorrectly than I can only offer my apologies and ask that the Defence People Group perhaps have a look at how they manage such simple data requests as the Corps background of senior officers.

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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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

Positive Feedback

Having just received the Spring 2014 Edition of the Liaison Letter, I wish to echo the many complimentary remarks already made about the publication. The information contained in the articles serves as a reminder of the past and also updates those of us who are now not active, of the current Gunner activities. It gives me hours of extremely interesting reading, for which I thank you.

Over the years in my civilian employment, firstly with an oil company and then with a tourism authority, in senior marketing positions, I learned to recognise and appreciate the need to produce quality publications. The RAA Liaison Letter is a quality publication, congratulations. I very much look forward to receiving future editions.

With thanks and best wishes
Major Ray Bird, EB (Retd)

Editor: I am pleased that you find the Liaison Letter both useful and enjoyable. Thank you for your feedback as whilst all feedback is welcome, it is particularly rewarding when it is constructive and positive. Those of us who compile and edit the Liaison Letter and Cannonball strive to continually improve on the content and quality of the presentation with each edition.

Further Feedback

Received the Liaison Letter / Cannonball today, for which many thanks. Another outstanding effort, well done. It was always good, but quality is getting noticeably better with each issue. Great work.

Major General Mick Crane, DSC and Bar, AM

Editor: Thank you for your comments as they are most appreciated. As I mentioned above we do our best to improve the quality of the combined publication. I would add the publication is only as good as the support received from those who contribute papers and articles, etc. Many thanks for taking the time to write.

Feedback Continues

Thank you very much for your continued efforts in editing the RAA Liaison Letter. It looks fantastic and is going from strength to strength as a quality record of both historic and contemporary events across the Regiment.

Colonel Brandon Wood

Editor: On behalf of all of us involved in the compilation, editing and publication of the combined journal thank you for your compliments. Positive feedback makes the effort that goes into producing the journal worthwhile.



DATE CLAIMER

RAA

LIAISON LETTER

Spring 2015

Next Edition Contribution Deadline

Friday 14th August 2015

Regimental

Representative Colonel Commandant

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



Dear Fellow Gunners

Here in Perth we have been treated to the incredible and phenomenal performance of the Royal de Luxe Giants, normally based in Nantes, France. The Diver Giant and the Little Girl Giant spectacular opened the Perth International Arts

Festival with a story cleverly linked to Gallipoli. The Giants concluded their three day visit with a moving and unique tribute to Anzac in a ceremony watched by thousands.

The 18-Pounder will ... serve as a reminder of the great part played by Artillery in the Great War.

Throughout Australia attention is turning to this very special 2015 Anzac Day. I have been pleased to see recently good media coverage of the Anzac Centenary 18-Pounder Gun Project being progressed by the Royal Australian Artillery Historical Company (RAAHC). The 18 Pounder will feature in a number of Centenary events including the Canberra Anzac Day March, and will serve as a reminder of the great part played by Artillery in the Great War. It will also provide a focus for Gunners past and present in celebrating our proud heritage, and our contribution to Australia not only in 1915 but every day since.

It is also timely to mention another RAAHC contribution to the Anzac commemorative events over the next few years, the history seminar series 'Firepower: Lessons from the Great War'. The series

aims to examine the role of firepower during that war and to reignite passion and interest in Artillery. It was launched at the end of February by Lieutenant Colonel Nick Floyd, series Project Director and President of the Royal Australian Artillery Association (ACT). The opening seminar will take place at the Australian Defence Force Academy on Wednesday, 13th May 2015. On behalf of our Royal Regiment I thank and congratulate the RAAHC and Nick on this initiative, and encourage your participation wherever and whenever possible. Further detail on the 'Firepower' seminars is available on the RAAHC website or by contacting Nick Floyd (02 6265 5640, 0404 243034).

The series aims to examine the role of firepower during that war and to reignite passion and interest in Artillery.

I was delighted to see Gunners recognised in the Australia Day Honours List, and extend the warm congratulations of the Colonels Commandant, Head of Regiment and the gunner family. Warrant Officer Class One DR Grundell received the Conspicuous Service Medal for his leadership and technical mastery as Master Gunner New Equipment Training Team at the School of Artillery. Lieutenant Colonel RL Lang was awarded the Conspicuous Service Cross for outstanding achievement as the Commander Joint Task Force 630, delivering critical humanitarian aid during Operation Philippine in the aftermath of Typhoon Haiyan. Good Shooting, Gentlemen.

Ubique

Head of Regiment

Brigadier Peter Gates CSM



There is little rest for the Gunners and the New Year has begun in earnest across the whole of the Regiment.

May I first congratulate those Gunners who have been appointed to the key command positions at unit and battery level. It is a great adventure and incredible responsibility you have earned and I wish you the best of luck leading the Gunners of the RAA.

It is a great adventure and incredible responsibility ...

I will also highlight those Gunners recognised for their excellent contribution to Army in the Australia Day 2015 Honours List. You should be proud of your achievements and you bring great credit not only to yourselves, but also the people you worked with and the RAA as a whole.

I remain impressed with the work being done throughout the Regiment to seek out how we can build on the new capabilities and opportunities presented to us. Whether it is continued development of the light battery capabilities within the 2nd Division, the ongoing expansion of the air land capability at 16th Air Land Regiment, greater understanding of the digital joint fires system or the technical and tactical mastery of the UAS community within 20th Surveillance and Target Acquisition Regiment. I have been most impressed with the soldiers, junior non commissioned officers and junior officers, who have grasped the opportunity of being at the hard edge of emerging combat and surveillance capabilities. Their knowledge and desire to push the limits of new equipment and organisations is commendable. While common sense, safety and those enduring principles for employment remain in place to guide development, it is worth listening to those junior members of the Regiment and provide them with the latitude to shape the Regiment they will inherit.

The centenary of Anzac year also marks an important time in many RAA units. 20th Surveillance and Target Acquisition Regiment will celebrate their 10th year; 4th Regiment, RAA will be 55 years and the School of Artillery will bring up



Lieutenant Corina Forner being presented the Artillery Prize by Colonel Brandon Wood on behalf of Head of Regiment.

130 years of service in late 2015. There will be many milestones this year and I encourage you to take time out to celebrate and enjoy these times with your fellow Gunners both serving and retired.

Their knowledge and desire to push the limits of new equipment and organisations is commendable.

We welcome another cohort of young Officers into the Regiment and I wish them best of luck on their Officers Basic Course and in their critical role leading the soldiers of the Regiment. They join an increasing number of soldiers entering the RAA as part of a general recruiting surge for Army.

At the RMC graduation ceremony last year I was represented by Colonel Brandon Wood who presented the 'Royal Australian Artillery' prize to Lieutenant Corina Forner (20 STA Regt). Lieutenant Loughlin O'Keeffe (4 Regt) was presented the Officer Training Unit Scheyville prize for 'greatest improvement in leadership qualities on the course' by Colonel Wal Hall (Retd).

The following other graduates have joined the Royal Regiment: Lieutenant's Samuel O'Neal, Daniel

Gillam, and Jack Bagwill (1 Regt); Lieutenant's Henry Dudley-Warde, Elizabeth Ellis, and Beau Gordon (4 Regt); Lieutenant's Thomas Jordan, Pietro Ruggeri, Sam McLean, and Brendan Kelleher (8/12 Regt); Lieutenant's Robert Cameron and Michael Parry (16 ALR); Lieutenant Andrew Penhaligon (20 STA Regt); and finally Lieutenant Doyle Beaudequin (ARTC).

The following Intelligence Corps officers will be undertaking their non corps training with artillery: Lieutenant's Matthew Jaensch (20 STA Regt), Anthony Lewis (4 Regt), and Luke Arbuthnot (1 Regt). While Lieutenant Dean Nicolle (4 Regt) is from Army Aviation.

On behalf of the Gunners I wish you the all the best at the outset of what I trust will be a rewarding career.

Continue your good work, enjoy your service and I hope to see you out in the Regiment.

Ubique



Lieutenant Loughlin O'Keeffe being presented the Officer Training Unit Scheyville Prize for 'Greatest improvement in leadership qualities in the course' by Colonel Wal Hall (Retd).

Deputy Head of Regiment

Lieutenant Colonel Dave Edwards



My sincere welcome to the Gunners of the Regiment to the autumn 2015 edition of the RAA Liaison Letter I hope you are well and ready for what will no doubt be another big year for the RAA.

It remains exciting times across the Regiment. 2nd

Division Joint Fires, supported by Headquarters Combined Arms Training Centre, has developed a new suite of courses for the Light Battery Observers at the School of Artillery. The Light Battery's, along with the Royal Australian Regiment, continue to look forward to the introduction of the replacement mortar program under Land 136. It is expected to deliver an improved barrel and digital capable hand held calculators. We look forward to seeing 20th Surveillance and Target Acquisition Regiment realise more of its remarkable capability with its complete compliment of lasers coming on-line during the year. The next step in Digital Terminal Control Systems is expected to be delivered by mid year and the roll out of Block 4 M777A2 continues. The Air Land Regiment has reorganised itself into more balanced sub-units and continues it journey with air defence, JTAC, GL and air land integration systems. I also note a big year for trade development with most RAA employment categories heading for review.

Let them know what you are doing, what you have learned. Write it down for others to read.

It is busy everywhere. Training courses, conducting exercises to meet force generation milestones, the conduct of displays and attendance at commemorative events and even the daily administrative demands all take time from us and make us focus only on our part of the Regiment. This is a shame considering our relatively small size and the great creativity and ingenuity being demonstrated around all the units and sub-units. I would encourage you to keep the lines of communication open with others. Let them know

what you are doing, what you have learned. Write it down for others to read. There are a number of places whether the Liaison Letter, the Army Journal, the Future Warfare Blog or a short paper that captures your thoughts. At the same time, remain open to new thoughts and seek out those opportunities to test those ideas you have had. I hope part of the RAA Command Post Exercise will allow the presentation of some new ideas that challenge how we do business and how we think.

I would like to recommend that all RAA units to take time in their busy schedules to constantly reinforce the basic skills delivered during individual training. A real focus on mastering these skills sets the conditions for advanced collective training activities. While you leave training better than you started, these skills are far from perfected and I commend junior commanders to get back to basics in theory and practice occasionally. Do not lose sight of the basics that form your foundation of your teams accuracy and safety as you launch headlong into advanced training.

I would like to recommend that all RAA units to take time in their busy schedules to constantly reinforce the basic skills delivered during individual training.

Whether you are dropping mortars down the tube, flying a Shadow, watching the tracks on the radar, adjusting fire, fighting for communications or lifting bombs, I wish you the best of luck in 2015 and hope to see you soon.



Regimental Master Gunner

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



Ladies and Gentlemen of the Royal Regiment welcome back to work for 2015 and the challenges that this year will present. Like previous years, 2015 is shaping into a busy and challenging year. Whether it is Army's rolling

schedule of unit establishment reviews, the continued delivery of new equipment or software updates to existing equipment or new operational deployments. All are challenging the RAA in some respect. Against this backdrop the Artillery Trade and Training Cell is busy preparing a number of trade management submissions to support the continued evolution of all aspects of the RAA Employment Categories.

All are challenging the RAA in some respect.

Artillery Trade and Training

Artillery Trade and Training Cell manning in 2015 is:

- SO2 Arty - MAJ M Gowling
- SO3 Arty - CAPT E Stewart
- RMG - WO1 M Sullivan
- 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

Trade Management Update

The ongoing challenge to support the changing face of Artillery requires continued amendment and refinement of the trade structures and training management packages. Some recent updates are:

- *Operator Unmanned Aerial System (OPUAS), ECN 250.* The OPUAS Employment Category (EC) was presented to the Employment Category Review Endorsement Meeting (ECREM) on 10th November 2014. There is an ongoing package of

work as a result of the ECREM that is well underway but must be finalised before the OPUAS EC can be presented to the Defence Force Remuneration Tribunal (DFRT). The date for when OPUAS is to be presented to the DFRT has not yet been set.

- *Offensive Support (OS) ECN 161, 162, 254, 255 and 357 and Ground Based Air Defence (GBAD), ECN 237.* The OS and GBAD employment categories will be presented to the Army Employment Category Management Stakeholder Steering Group (ASSG) on 24th March 2015. The primary purpose of the ASSG is to review, test and endorse ideas, concepts and outline courses of action and provide clear guidance to stakeholders on actions required to support the conduct of Employment Category Reviews. An ASSG is not conducted to endorse ECR submissions; this is the purpose of the ECREM. Currently the OS and GBAD ECs are scheduled for presentation to ECREM on 24th September 2015.
- *RAA Officer Employment Specifications (ES).* On 15th December 2014 the Director General Personnel - Army approved the RAA Officer ES. The purpose of the RAA Officer ES is to articulate the functions, skills, and career development of any Officer allocated to RAA and is reflective of individual and experiential training delivered through career progression from the Regimental Officers Basic Course to the Combat Officers Advanced Course. The RAA Officer ES outlines the roles, tasks and responsibilities of the RAA Officer, from Lieutenant to Lieutenant Colonel. The specification also details specific operating environments that officers would be expected to work in. The RAA Officer ES is published in the Manual of Army Employments.
- *Soldier Career Course Naming Conventions.* In November 2014, Headquarters Forces Command issued direction that soldier career course naming conventions were to be simplified. This is a significant package of work currently being undertaken by Army's respective Trade and Training Cells. In respect to the RAA this will mean that the 96 training management packages currently managed by the RAA will require significant amendment as well as the re-titling of the course on PMKeyS. The changes need to be complete no later than 1st December 2015. As you can appreciate this will be a rolling update as each training management package is reviewed during 2015. However, from January 2016 new course titles will be in place and units will need to familiarise their staff with the changes to ensure they are abreast of the change.

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 2015.

Ubique

The Light Artillery

*Major Stu Seabrook
SO2 Joint Fires
2nd Division Joint Fires Cell*

It seems a long while since we put pen to paper to inform the Regiment of how the Light Artillery are doing. For us the year always starts with the firing of the Australia Day salutes in Sydney, Perth, Adelaide and Hobart. It is a sad reminder for the Light Artillery Gunners that we can only use our Guns on special occasions.

Headquarters 2nd Division Joint Fires Cell

Headquarters 2nd Division Joint Fires Cell started the year with the Light Artillery Conversion course which aims to convert newly posted in Australian Regular Army cadre staff from Guns to Light Artillery. This year the course was conducted in Perth hosted by 3rd Light Battery and was very successful. Despite not being able to conduct a course live fire exercise we achieved qualifying ten students ranked from Major to Bombardier. It is expected that in the next few months all students will conduct the live fire components within their light battery's.

Our next big event is the Headquarters 2nd Division Joint Fires Cell March courses period conducted at Randwick Barracks. The courses that will be conducted are Mod 1 Joint Fires Team Course (Basic Observer), Light Artillery Command Post Course, Light Artillery Supervisors and MOD 5 of the Army Reserve Regimental Officer Gunnery Course. These courses can only be conducted with support from the light battery's and their parent infantry battalions and of note all the course panels are full.

I will write next time on the Army Reserve RAA Light Artillery Training Model which we are finalising. We have been working hard in conjunction with the SOArty and Headquarters Combined Arms Training

Centre to develop an enhanced training model which better reflects our capability output which is to provide the Joint Fires effect to the Reinforced Battle Group equipped with the 81mm Mortar.

Finally the Cell has a major change in personnel, WO1 (MG) Shaun Graham was discharged from Army and WO2 (SMJF) Dave Carter has been posted to the AATW at ARTC. Both were SME pillars in the development and refinement for the Light Artillery Trade model which will go to ECRB this year. These individuals will both be missed. They have been replaced by WO2 (SMJF) George O'Connell who although having a hard act to follow has already made a good start.

3rd Light Battery 11th/28th Bn RWAR (Ready Phase)

The Battery started a busy year with the traditional 21-gun salute for Australia Day. This was the 66th time the Battery has conducted this Salute. In addition the Battery played a vital role to commemorate the 1st AIF contingent sailing from Fremantle and their subsequent landing at Gallipoli. These events were very successful and were witnessed by a large group of appreciative civilians and an equally large media contingent.

To enhance the Battery's capability several of its members, in conjunction with its paired brigade, will attend Exercise Warfighter. This command post exercise with our coalition partners in Hawaii will provide the essential Joint Fires effect training as a prelude for Exercise Talisman Sabre 15.

The Battery Commander 3rd Light Battery tells me his Battery intends is to regain the prestigious Mount Schanck trophy therefore we will just need to watch this space.

6th/13th Light Battery, 10th/27th Bn RSAR (Reset Phase)

Last year (2014), the Battery achieved high levels in training and on activities which was not normally required and considerably more than anticipated through the 'Reset' phase of the Force Generation Cycle (FGC). This year started with the conduct of simultaneous gun salutes in Adelaide and Hobart and of note the Battery had the honour of firing two additional gun salutes in 2014 for the Swearing in of the new SA State Governor and Parliament.

Despite a very active saluting program the Battery concentrated to conduct live fire activities. The Battery conducted numerous live fire exercises including Exercise Kokoda and Exercise Pozieres at Murray Bridge Training Area (South Australia), Exercise Alamein at Stoney Head Training Area

(Tasmania), and Exercise Amiens at Cultana Training Area (South Australia). In addition the Battery also provided several members to support the 81mm Mortar element to Exercise Chong Ju. On top of all of this some of the Gunners deployed with the 7th Battalion Royal Australian Regiment mortar platoon on Exercise Razorback Ridge.

Operationally, the Battery deployed four soldiers on Transitional Security Element (TSE) 73 and a further two on TSE 74 in support of Operation Sovereign Borders.

This year the Battery will transition from the 'Reset to Ready' phase of the FGC with a 5 day, 3 day and 16 day live fire exercises. These will provide very valuable training opportunities in partnership with 8th/12th Regiment and 1st Brigade as a prelude to Exercise Hamel 16. The new Battery Commander Major Mick Gray has a very busy year planned for the Battery.

7th and 23 Light Battery's (Readying)

These paired light battery's have formed a composite Light Battery which is in the final stages of preparation to take part in the 7th Brigade CATA a live fire Exercise Diamond Strike in June 2015. As a

build up for this exercise the Battery will take part in the 7th Brigade Command Post Exercise and Exercise Polygon Wood.

Both Light Battery's have new Battery Commanders, Major Phillip Wong (7) and Major Il-Kwon Jeong (23). Please note that Exercise Diamond Strike is the FOC test for the Light Artillery concept, no pressure.

Summary

In summary all the light battery's have had busy years in 2014 and are planning to be even busier this year. Individual and collective training is going well however we still need to establish effective JFECC mains within the Reinforced Battle Group Headquarters, although this is a concern we are on track to complete that task by Exercise Hamel 16.

Finally I would like to welcome to the 2nd Division:

- CAPT Vanstan 2/10 Lt Bty
- CAPT Smallwood 7 Lt Bty
- WO2 (SMIG) Troy 23 Lt Bty
- WO2 (SMIG) Duffy 7 Lt Bty
- WO2 (SMIG) Glover 2/10 Lt Bty



6th/13th Light Battery Firing the 2014 Australia Day Gun Salute in Hobart

High-Tech WO1 Recognised

Cpl Max Bree

DIGITISED artillery calls-for-fire are now standard across the RAA, thanks in part to master gunner WO1 David Grundell, who received a CSM in the Australia Day honours for his part making it happen.

As the Master Gunner at the School of Artillery's New Equipment Training Team, WO1 Grundell helped introduce the Advanced Field Artillery Tactical Data System.

It digitally relays target information from an artillery observer, through a CP to the gun line.

"We've gone from people talking on radios to now passing a lot of the information digitally over the system," WO1 Grundell said. "It's a bit like going from writing on a chalk board to using a pen."

"Using voice-over-radios, a well-drilled battery could get target information from a spotter, through the CP to the gun line in 60-90 seconds.

If you open it up now it can be done in 45 seconds," he said.

The system will eventually be expanded so Navy ships and UAVs can spot artillery targets.

WO1 Grundell said it was challenge for some to learn the new system.

"For new soldiers coming through this is all they know, but for everyone else they have to get used to how it works," he said.

WO1 Grundell said he couldn't understand why he was singled out for an award. "I'm still flabbergasted that I'm actually getting it," he said.

"I just hope the other guys get the same kudos I got.

"There was a complete team of guys and other people that were in the position before me. I just happened to be there when we first got it and started bringing it into service."

The best part of working with the new system for WO1 Grundell was seeing it in action for the first time.

"To get out and shoot the first digitally enabled missions and see how it was supposed to work was really good," he said. "We're still working our way through the use of it but this is a massive step from where we were."

Army, January 29, 2015

Five Minutes with Major General David Coghlan, AM



David Coghlan was born in Canberra and graduated from the Royal Military College Duntroon in 1984 to the Royal Australian Artillery. From 1985 to 1988 he held a variety of Regimental postings in the 16th Air Defence Regiment at Woodside in South Australia involving both the Rapier and

RBS-70 surface-to-air guided missile systems.

In 1989 and 1990 Captain Coghlan was the SO3 Operations at Headquarters 3rd Brigade in Townsville and from there was posted as an instructor at the US Army Air Defense School at Fort Bliss Texas. Upon return to Australia in 1993 he was the Operations Officer and Battery Commander of Headquarters Battery at the 16th Air Defence Regiment.

From there Major Coghlan attended Army Command and Staff College at Queenscliff followed by a posting to Brisbane as the SO2 Operations at the Deployable Joint Force Headquarters. In 1999 he was promoted to Lieutenant Colonel as the SO1 Organisational Structure in Army Headquarters. For his efforts in this area he was awarded a Chief of Army's Commendation.

While posted to Army Headquarters he completed a Master of Defence Studies at the Australian Defence Force Academy where he was awarded the Defence Studies prize as the top student in the program. During this period he was awarded first and second prizes in the Chief of Army's Essay competition.

During 2002 Lieutenant Colonel Coghlan deployed as the contingent commander of the Australian United Nations Military Observers and Senior United Nations Military Observer in the Oecussi Sector of East Timor. In 2003 and 2004 he commanded the 16th Air Defence Regiment during a period of rapid expansion and revitalisation. Promoted in 2005 he was appointed as Colonel Plans Headquarters Training Command – Army.

During 2006 he was the J5 – Plans at Headquarters Joint Operations Command in Sydney. Following this appointment Colonel Coghlan deployed to Afghanistan as the Deputy Commander Joint Task Force 633 (Afghanistan) located in Kabul. For his performance as J5 and in Afghanistan Colonel Coghlan was appointed a Member of the Order of Australia in the 2008 Australia Day Honours List. Colonel Coghlan then attended the US Army War College in Carlisle, Pennsylvania as a member of the resident Class of 2008 graduating with a Master of Strategic Studies.

Promoted in October 2008, Brigadier Coghlan was the Director General of Military Strategy in Strategic Policy Division of the Department of Defence until July 2011. Following this, until September 2013, he commanded the Army's 6th Brigade where he was responsible for the provision of the majority of Army's Air Land, Intelligence, Surveillance, Electronic Warfare, Infrastructure Engineering and Joint Fires capabilities through the command of nine specialised units.

Promoted in September 2013, Major General Coghlan deployed to Afghanistan from October 2013 to November 2014 as the senior Plans officer of the International Security Assistance Force Joint Headquarters in Kabul.

Major General Coghlan is married to Trish and they have three children, Jessica 22, and twins Benjamin and Sarah who are 20. His interests include his family, reading, history and he is a keen follower of cricket.

-
- You have had operational service as a contingent commander and in more senior operational and strategic level appointments including in East Timor and Afghanistan. What do you consider are the key influences from these experiences that have enhanced your management and most importantly leadership skills?

I have been fortunate to have had operational experience ranging from East Timor, the UN, Australian national command and most recently 12 months in Afghanistan as a senior planner with ISAF. A key outcome from these deployments has been that the training, experience and preparation we receive is first class and we are well qualified to take on diverse and often demanding roles in operations. The key impact on my command, leadership and management skills has been to better appreciate the importance of context of all those involved in a particular operation. Enabling context, an understanding and appreciation

of culture is essential: throughout last year I was dealing with the perspectives of well over 40 countries that were part of the ISAF coalition and numerous additional stakeholders, not to mention the Afghans and the insurgents – you must understand the cultural environment in order to come up with realistic solutions.

- As you have gained experience and seniority how has your leadership style evolved and what are the fundamental principles on which you base your conduct and related decision making?

With few exceptions, I believe leaders are made not born. Leadership is about influencing people to achieve an end state and there are various leadership styles to achieve this. As I have gained experience I have become more aware of the importance of listening as a key attribute to leadership and that the most effective leaders use different styles as the situation demands: the key is to understand the situation thoroughly and adjust accordingly.

- Have you been required to modify your leadership style as a senior officer in the course of working with senior public servants and politicians?

No I have not. I was fortunate to work as a Brigadier in an enjoyable appointment where my boss and her boss were civilians and the majority of the people in my branch were civilians. This posting also included several months where I acted in a First Assistant Secretary position. The basics remain the same: listen to and respect people and you will be fine. However, public servants and military approaches can be different and our complementary skills both contribute to resolving problems. Don't have a closed mind: I have learned a lot from public servants.

- As a former Head of Regiment do you believe the current arrangement, where HOR is essentially an Extra Regimental Appointment for a busy senior Gunner Officer, is the most appropriate leadership structure of the Royal Regiment looking to the future?

No I don't think it is the most appropriate solution but it is workable. Gone are the days where we can justify the appointment of a senior officer and staff to the HOR role. In many ways, several of the functions of the old Head of Corps resulted in a silo type approach to issues that often resulted in atrophy and inequity. Interestingly, many other western militaries are heading in this direction.

- What part do you believe your Regimental training, background and experiences played in preparing you for higher level non-Artillery appointments?

My corps background was critical in preparing me for non-Artillery appointments. Most importantly my RAA training imbued me with a sense of professionalism essential for success in non-Corps appointments. As an air defence officer, by the nature of my duties, I was fortunate to be able gain considerable experience with the manoeuvre brigades and with the air force in my first three to four years out of RMC. This made me more comfortable and experienced than many of my peers when it came to courses or large exercises.

- As a senior commander with ever increasing demands on your time and conflicting priorities how do you maintain the appropriate work life balance that is regularly referred to within Army? Further do you have any particular advice for the readers, especially those still serving with regard this personal challenge?

There is no option here: you must maintain a sustainable work life balance. It is achievable and if you are not doing so you need to ask yourself why and, if necessary, talk to your boss or someone who can help you in this area. Even in operations work life balance is essential: especially for a year long tour. During my recent deployment my boss, a US LTGEN commanding the ISAF Joint Command (IJC), changed over. On his first address to the HQ (about 1500 people) he strongly discouraged take away meals from the DFAC and let it be known that he would only be in the office after 2100hr if there was an emergency. This had an immediate impact on the HQ - working hours reduced but output increased. As a commander or leader you have to set the example in this area.

- As the Army addresses the post Afghanistan era, what level and type of training should Army and in particular the Royal Regiment focus on in preparation for future contingencies?

We have a wealth of experience from our operations in Iraq, Afghanistan and elsewhere. We need to consolidate this and get back to conventional war fighting at formation level. In doing so we need to take advantage of our new equipment to ensure we can deploy a networked force that is capable of communicating in real time with the allies we are likely to deploy with. Experience has shown us that if we train for conventional warfare we can readily adapt to less demanding operations: if we don't, we increase the risk to ourselves and to the mission.

- What do you consider your most memorable career highlights not related to the Royal Regiment?

I have been very fortunate in having a career full of great jobs. Non-corps jobs that are the most

memorable include SO3 Ops at 3 Bde, J5 at JOC, Director General of Military Strategy and my recent experience as J5 of IJC in Kabul.

- As a senior Army Commander do you subscribe to the old adage 'Once a Gunner always a Gunner?'

Of course! The Regiment is unique amongst the Corps of the Australian Army and a lot of this is due to our history and heritage. Often we only appreciate this as we get older. I would encourage everyone to think about this a little more and support the great work being done to preserve our heritage and, through this, our Gunner culture.

- What do you consider as the highlight of your Regimental service?

Command of 16th Air Defence Regiment through a period of rapid expansion and change was the highlight. It is great to see many of the ideas and plans developed by the command team of that time coming to fruition in 16th Air Land Regiment.

- What single piece of advice would you offer young officers and soldiers commencing their career as a Gunner?

Clearly to enjoy yourself – within the boundaries you have signed up to as a member of the Australian Army and the Regiment. I have a simple approach to my career: Respect the past, Improve the present and Set the future. If you can walk away from your posting having done this then you are on the right track.

- What advice do you have for the Royal Regiment as it embarks on a significant period of change structurally and capability wise?

Work hard to integrate our new systems and, to paraphrase a US saying, train hard to fight easy.

- Are the young officers and soldiers of today better prepared for their first appointment than you were when you graduated?

Absolutely. A year in Afghanistan reinforced to me that our soldier and officer training continuums are world class and our equipment is demonstrably better than when I graduated. ADFA graduates are very much at ease in the tri-Service environment and I constantly see the benefit of this as they gain in seniority. Despite all the changes though, I think the ethos of Service is the same as it was when I graduated – after all that is why we join the Army.

Australia Day Honours 2015

CONSPICUOUS SERVICE CROSS (CSC)

Lieutenant Colonel Roderick Lindsay LANG

FOR OUTSTANDING ACHIEVEMENT AS THE COMMANDER OF JOINT TASK FORCE 630 ON OPERATION PHILIPPINES ASSIST DURING THE PERIOD 23 NOVEMBER TO 17 DECEMBER 2013.

Lieutenant Colonel Lang displayed inspiring leadership and achieved outstanding results as the Commander of military support to the Australian Government disaster response to the Philippines. His meticulous planning, careful coordination and wise liaison ensured the successful delivery of valuable humanitarian assistance in the aftermath of Typhoon Haiyan. His actions were in accordance with the highest standards and finest traditions of the Australian Army, and the Australian Defence Force.

CONSPICUOUS SERVICE MEDAL (CSM)

Warrant Officer Class One David Ramon GRUNDELL

FOR MERITORIOUS ACHIEVEMENT AS THE MASTER GUNNER, NEW EQUIPMENT TRAINING TEAM.

Warrant Officer Grundell has consistently demonstrated superior leadership, technical mastery and great dedication to duty in managing and supporting the Introduction into Service of the Advanced Field Artillery Tactical Data System. He has consistently provided superior instruction and mentorship to his students and exceptional technical advice to a range of commanders and stakeholders. His commitment and technical skills have enhanced the reputation and capabilities of the Royal Regiment of Australian Artillery.

'Big Sky Publishing' Incentive Prize

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 Major James Groves, Battery Commander 109th Battery, 4th Regiment RAA; Lieutenant Gerard Hinchliffe 102nd (Coral) Battery, 8th/12th Regiment, RAA; and Sergeant Anthony Bray, School of Artillery.

Major James Groves will receive copies of 'Landing at Anzac 1915' by Chris Roberts and 'The Ottoman Defence Against the Anzac Landing 25 April 1915' by Mesut Uyar for his professional paper on *'Exploiting Network Digitisation'*.

Lieutenant Gerard Hinchliffe will receive a copy of 'To Kokoda' by Nicholas Anderson for his professional paper on *'The Role of the M777A2 in Australian Army's Future Conflicts'*.

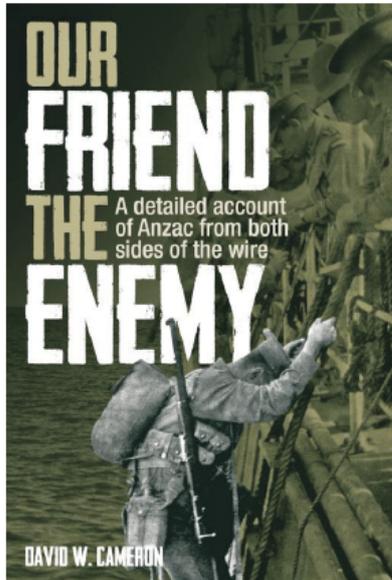
Sergeant Anthony Bray will receive a copy of 'My Vietnam War – Scarred Forever' by Dave Morgan for his contribution to the School of Artillery article on the *'Radio, Digital and Support Wing'*.

Congratulations to both individuals - I look forward to receiving even more quality contributions from across the Regiment for the Liaison Letter 2015 – Spring 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.



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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.

Our Friend the Enemy
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

You Can't Surge Trust

A Battlefield Coordination Detachment for the Australian Army

Lieutenant Colonel GC Cassar

As Operation Slipper, Australia's most recent conflict, draws to a close, it is important to ask the question: *'Which lessons, hard-learned, need to go beyond the current operation and be incorporated into the Australian Army as an enduring structural change.'* One such lesson is the value of integrated air-land operations. The relationship between the land manoeuvre force and the air force that supports it, has grown in importance and capacity since the first 'rag and tube' aircraft spied enemy dispositions for the Army in the Great War.¹ Over time, air power has come to supply fundamental capability to the Land Force across the full spectrum of warfare.² Through the provision of lift, strike, surveillance, reconnaissance, evacuation, manned or unmanned, rotary or fixed wing or capabilities originating in space, the combat potential of the Army within the land domain is magnified exponentially when combined with air power³.

Army faces considerable challenges of winning in the land domain. Where once the battlefield was dominated by high intensity, inter-state conventional warfare⁴, recent examples would suggest this paradigm has changed. Whilst still violent and bloody, conflict against non-state actors through irregular warfare, small wars, Military Operations Other Than War, Low Intensity Conflict, including counterinsurgency operations, were the prevalent form of warfare in the Twentieth Century.⁵ In a complex and dynamic environment where the fight for the Dominant Narrative⁶ is as important as the kinetic fight; where information

dominance is as critical as overwhelming firepower; and where non-state actors seek to exploit weaknesses not in military capability but rather in the political and social will to conduct military operations; the Land Component Commander must have common and ordinary access to all of the joint enabling capabilities available to the Joint Task Force if it is to be successful.

This paper argues that formalising, professionalising and integrating a senior Army Air planning capability with the Royal Australian Air Force (RAAF) Theatre Air Control System (TACS), which culminates at the Air and Space Operations Centre (AOC), is an essential requirement for Army. An enhanced capacity can be achieved through the establishment of a Battlefield Coordination Detachment (BCD) within the AOC. The sole purpose of the BCD is to integrate Joint Air Operations with Joint Land Combat at the operational level. Army has been experimenting with a BCD concept for a number of years; however the ad-hoc nature of how the BCD capability is formed and trained is unsustainable. Army is in a position to make an informed decision on the value of a permanent BCD capability.

This paper contends that the Australian Army is not adequately structured to access the full range of enabling capabilities of the Air Force. The Australian Army requires, but lacks a permanent, trained and enabled capability that can facilitate

the exchange of information between the Air Force and the Land Force of a Joint Task Force (JTF). As such, capabilities that are resident within the JTF are not easily accessible by the Land Component or minor JTF Commander. This is particularly the case for those critical capabilities that reside exclusively within the AOC.

In many cases, capability improvements have occurred along service lines and there has not been a high enough priority placed on ensuring that those improvements also function in a Joint environment. It is acknowledged that single services are not individually responsible for joint capability development. However Army along with the other services, do have a role in resolving the tension between environmentally orientated capability development and the need for a coherent distribution of Joint information. It is essential that the connective tissue that joins tactical fighting elements up the chain of command through the component HQ's to the JTF, function coherently up and down the entire JTF structure. Failing to do so disenables the application of synchronised joint military power and reduces 'Joint', in the Australian context, to mean 'component' cooperation, facilitated by email and liaison officers. The ADF, therefore, is denied the opportunity to achieve the level of integration that a JTF should.

Not a New Concept

Robust and effective liaison between Air and Land forces elements is not new to the ADF. Australian forces have been both the beneficiary of having effective air-land coordination and felt the brunt of effective air-land coordination being used against them. The Battle of Hamel, 1 July 1918, saw coordinated air power provide reconnaissance, counter air, close air support, Artillery forward observation, resupply and strike operations to land forces.⁷ The Battle of Hamel is one of the earliest examples of the combat multiplying effect that orchestration between the various arms infantry, armour, artillery and aircraft can have on the battlefield.⁸ In 1941 the German Wehrmacht and Luftwaffe used coordinated air power with such devastating effect against the Australian and New Zealand forces, that in June 1941, General T.A. Blamey wrote to the Minister of the Army, F.M. Forde; and stated '... in the most emphatic terms that it is essential to have an air component of Bomber and Fighter aircraft as part of the organisation of an Army Corps.'⁹ Blamey was seeking the kind of 'unity of effort' that he had seen

employed during the evacuations of Greece and Crete.¹⁰

At the time of writing this paper, US Army maintains an embedded BCD within the Combined AOC (COAC), in Al Udeid supporting Operations within the Middle East. Within the Al Udeid COAC, air land coordination is actioned with early input of the land priorities by the BCD, and this close integration and habitual relationship ensures that air power appears to be 'on-tap' to deployed land force elements. This continues to be a significant contributor to success in that Operation.¹¹

'... in the most emphatic terms that it is essential to have an air component of Bomber and Fighter aircraft as part of the organisation of an Army Corps.'

The value of effective coordination with the RAAF is well understood by Army, however, how the coordination is physically enabled is not well understood. Army has recently taken some steps towards improving Air-Land coordination; however this improvement has been almost exclusively, at the tactical level. What is missed by Army focussing developmental effort at the tactical level are the significant capability advancements made by air force that reside only at the operational level. Air Forces globally, have experienced fundamental advancement in traditional air power capabilities including aircraft lethality, range and payload. However more importantly for Army, are the advances made by air forces in emerging operational level capabilities such as advanced Intelligence Surveillance and Reconnaissance (ISR) and space based capabilities.

At the tactical level, integration of air and land forces is well understood and the systems and processes to effectively conduct close air support, air transport aerial delivered logistic support and air space management is in place. The next step for Army is to determine how it can best draw upon the technological advancements made by the RAAF, at the operational level, and bring them into the land domain. Technological advancement in ISR, whether manned, unmanned or space based is not well understood in Army and as such is under utilised in prosecuting operations in the land domain. These significant developments in terms of air platforms, space platforms, electronic system and data capabilities enable the RAAF to wield information unlike it has ever been able to do in the past. All of the enhanced RAAF capabilities come

together at the AOC and this is where Army must better integrate in order to bring the full potential of the ADF to bear, in the land domain.

You Can't Surge Trust

Each of the AOC's major activities rely on expertise from liaison elements e.g., battlefield coordination detachment [BCD], naval and amphibious liaison element [NALE], and/or special operations liaison element [SOLE], to coordinate requests or requirements and maintain a current and relevant picture of the other component operations.¹²

Air operations are currently integrated with land and maritime operations when each of the contributing Services exchange liaison and coordination elements to represent their respective environmental commanders'. To this end Army has maintained Liaison Officers at RAAF Squadron, Wings, Force Elements Groups and at Headquarters Air Command through the 1st Ground Liaison Group (1 GL Gp) from 1940.¹³ Likewise the RAAF maintain Brigade and Division Air Liaison Officers and routinely attach Air Component Coordination Element's and Air Support Operation Centre's to JTF's as required.

A restructure within Army in 2009 separated the Army liaison function into two discrete parts.¹⁴ One that is tailored to support, Raise, Train and Sustain (RTS) activities and one that surges to support Operational activities within AOC. This Army liaison function is split partly because HQAC has a split Plans and Current Operations staff and partly because a permanent BCD could not be established at the time that 16th Air Land Regiment (16 ALR) was established and the 1 GL Gp was disbanded. The current structure supports a peace time defence force focussed on domestic training and does not support operational requirements, in particular, short notice operational requirements. Army provides a liaison capability at HQAC, through the Directorate of Army Air Support (DAAS). This aligns the DAAS outputs closely with that of the Plans staff of HQAC, whom control RAAF RTS. On an as-required basis, Army establishes a BCD within the AOC to support exercises, and thereby closely aligning air-land integration to the current operations function of HQAC. To date, the Australian BCD is only established to support major exercises and does not support operations. In so doing, inconsistent training and operational structures are created, therefore defeating the maxim, to train-as-you-fight. Additionally the BCD is not a cold start capability, available to support

high readiness forces on short notice to move. A permanent BCD capability correctly located and enabled could provide a level of Joint integration far beyond what is currently achievable.

Army has made some inroads into developing a permanent and enabled Air Planning capability at the Formation and Division levels, through the creation of Air Land Integration Cells (ALIC) within 16 ALR. 16 ALR is resourced to provide an ALIC at the Formation and Divisional levels which fulfils two of the three critical nodes for an effective Army Air Ground System (AAGS). The third critical node is the BCD. This node is largely unresourced and ad-hoc in nature. Fundamentally, the AAGS is a liaison and planning system and as such must function within the supported organisation's procedures and must have the trust and confidence of the supported commander to be effective. Each node of the AAGS requires specific training, specific systems and habitual relationships with the supported organisation. The training, systems and habitual relationships are available to, and sustainable for, those nodes currently provided by 16 ALR. The unresolved piece of the Air-Land integration puzzle is how to best create a credible and effective BCD to complete the AAGS. It is no great leap to conclude that without each node being enabled, the entire AAGS becomes dysfunctional. The current BCD capability is established on, an as-required basis. It has no well defined doctrine nor well established TTP's (Task, techniques and procedures). The ad-hoc BCD has no robust connectivity to the land battle management systems and relies on the experience of a small number of reserve and full time personnel for its continued operations. This is unsustainable if Army is to realise the full potential of an effective AAGS to the land domain. These issues are not insurmountable, however they require deliberate action if they are to be overcome.

Modern Operations Enshrine Incomplete Lessons

A significant part of the challenge in creating an effective AAGS is that of the broader Army's understanding of the need. The ADF is coming to the end of over 15 years of operational experiences in primarily non-conventional counter-insurgency conflicts. Traditionally Army draws upon its most recent operational experiences to frame training and development for future conflicts. During the 20 years after the Vietnam War, the Australian Army's operational concept was heavily weighted towards

operations in a jungle environment. It is likely that the ADF will reflect on both the wars in Iraq and Afghanistan for the same purpose. However, in both the Iraq and Afghanistan theatres, control of the air has been assured. This has allowed the preponderance of available air support assets to be directed towards the tactical actions of combat troops, creating a perception that air support is 'on-tap'. The reality is, in part, that the BCD within the CAOC at Al Udeid has integrated the land force priorities and ensured the Land Component Commanders' air requirement is accounted for during CAOC apportionment.¹⁵ In addition to major conflict, the ADF has increasingly been called upon to support low-level humanitarian assistance (HA), disaster relief (DR), and stability and security operations (SASO); again where the air-land battle is uncontested and the need of air-land coordination and synchronisation is based on the volume available at the tactical level. Strategic air strike and air interdiction (AI) has not been an enduring characteristic of the operational environment. Immediate close air support (CAS) and airborne ISR down to patrol level, has been 'on-tap'. Within this operational paradigm the requirement for detailed air-land integration planning, above the tactical level has been masked to a degree. An abundance of air power can compensate for the lack of an effective AAGS framework. Air power does not need to be strongly justified or tightly apportioned as there is a seemingly inexhaustible availability of air power to draw upon.

These recent operational experiences have led to essential improvements in such capabilities as joint terminal attack control (JTAC), joint fires observers (JFO), digital terminal control systems (DTCS) and direct support airborne ISR. However, the net experience has not reminded us of the robust operational-to-tactical level C2 arrangements required to secure (apportion, allocate, request) and integrate joint air support with joint land combat in future, plausible and contested airspace conflicts.

The future operating environment is likely to be complex as technological and social changes impact the nature of future warfare. The future security environment is characterised by its complexity, diversity, diffusion and lethality.¹⁶ As technologies continue to improve, enemies will increasingly seek to shelter in complex terrain, be that physical, human or informational terrain. Lethality will continue to increase through the availability of advanced materials and technologies, which will

provide adversaries with the capacity to achieve a level of lethality that has hitherto been the sole purview of State actors.¹⁷ Improvements in digital connectivity will have significant impacts on Army's capacity to network within a joint, interagency and or coalition environment.¹⁸ However this will only be the case where that connectivity links Army to those joint, interagency or coalition capabilities and extends beyond Army centric structures. The Land Force needs to be structured and prepared to fight '*wars amongst the people*', at short notice, in close cooperation with the interagency and other services, from over the horizon, and across the shore.¹⁹ In such a future the ADF must prepare for conflicts that could potentially place far greater demands on the available air power capability, across multiple lines of joint high tempo operations, within which, Land Component must still succeed.

The AOC – A Weapon System

Of itself, the AOC is regarded by modern air forces as a weapons system. Its processes are complex and multi-faceted, designed to deliver air power effects to the Theatre or Joint Force Commander according to the operational design and, or campaign plan. The Australian AOC located with HQ Joint Operations Command (HQJOC) is a world first, technologically advanced and enabled operations centre similar in structure, purpose and tasks with Australia's major operational partners. The AOC functions as the operations command centre for the JFACC and provides the commander the capability to lead, monitor, and direct the activities of assigned or attached air forces. It is the senior C2 element of the TACS and includes personnel and equipment from all of the disciplines available to the Air Component, to ensure the effective conduct of air and space operations. The AOC is the senior operational-level element responsible for planning, directing, coordinating, controlling, and assessing air and space operations.²⁰ Importantly for Army the AOC is the only node where a range of technologies reside. Some of which are essential to the Land Component Commander's ability to conduct Joint Land Combat. Many of these capabilities, or more importantly the outputs of these capabilities, are not available to the Land Component during planning for operations, or contingency planning, nor are they integrated into the planning and conduct of major exercises. As a result the Land Component situational awareness is reduced for no other reason than the Land Component has no

effective mechanism to access those critical outputs of the AOC.

A key principle for the application of air power is centralised command and decentralised execution²¹. This provides the JFACC with ability to set the priority of air support, direct the rate of effort and when required weight his main effort. It is within the centralised command function that Army does not effectively engage, but needs to, if it is to win resources and priority, and bring the full potential of the JTF to the Land domain. Within the AOC, the JFACC seeks to incorporate component representation throughout the AOC divisional structure, rather than just limiting those staffs to simple liaison positions.²² The advantage of this approach is obvious when conducting combat operations; however it is no less important a function during domestic operations such as Operation Sovereign Borders; Queensland Flood Assist or while supporting training within a Raise, Train, Sustain framework.

Air power, more so than any of the other form of combat, has undergone such technological advancement, that it has transformed the way aerospace power can be brought to bear, at every level of warfare, from the tactical to the national strategic and political.²³ The AOC, like other facets of aerospace power, has also undergone incredible technological advancement in terms of being able to provide a node where space-based, manned and unmanned, ISR, EW, air combat and air logistical capabilities come together. The AOC also provides a conduit for the introduction of coalition, and national government capabilities. The primary AOC processes include:

1. developing air strategy, future plans and commander's guidance;
2. tasking and executing day-to-day air and space operations;
3. coordinating joint deliberate and immediate targeting by JFACC assets;
4. receiving, assembling, analysing, filtering, and disseminating intelligence;
5. providing airspace control;
6. providing direction for air defence;
7. planning, tasking, and executing ISR;
8. produce and disseminating the Air Battle Plan (ABP), comprising the Air Operations Directive (AOD), Air Tasking Order (ATO), Airspace Control Order (ACO) and Special Instructions (SPINS);

9. conduct operational assessment; and
10. providing for the integration and support of air mobility.²⁴

Of the ten processes listed above, all are central to the Land Component's ability to conduct Joint Land Combat yet Army has no permanent liaison element at this critical node. Most significantly, Army has no trained and embedded element able to exploit the intelligence collection capabilities that only exist within the Intelligence, Surveillance and Reconnaissance Division of the AOC.

Train as you fight – A BCD for a Peace Time Army

The value to Army, and to joint integration of a permanent BCD is not diminished during phase zero activities. A BCD could play a very important role in supporting Army and Joint training objectives during RTS cycles. Being structured and located during training, as it would be during operations, it would create a number of efficiencies that under the current force structure are unnecessarily duplicated within Army. The role of the BCD during operations is not significantly different to the role of managing air support to Army for RTS purposes. Notwithstanding, there are some subtle command and control issues that need to be considered and some additional tasks that a BCD does not doctrinally perform. Maintaining independent structures, confusing command and control linkages, misaligned responsibility in RTS and Operations is inefficient and unaffordable. Army is required to be a robust, relevant and affordable element of Australia's National Security architecture. As the pool of operational funding is reduced along with a reduction in major operational commitments, the fiscal pressures on each of the services will continue to grow. The efficient use of defence resources will only become more keenly scrutinised as the services seek to generate and maintain capability within a constrained resource environment.

Government expectations increasingly include tasks that require the employment of Defence's unique skills and capabilities in situations that cater to wider national interests. These activities can vary from deterring the onset of an emerging issue, to conducting armed conflict, to policing and humanitarian operations, and other activities as directed.²⁵ Operations in support of domestic national security imperatives and support to national emergencies must be accounted for during the periods between major war-like operational

commitments. Through the structures per Plan BEERSHEBA,²⁶ and readiness per the JOC Operational Preparedness Requirement (JOCOPR) Army generates contingency forces to support the national interest. These contingency forces are not as effectively enabled in the Joint domain, through agencies like the BCD, as they could be. In many cases contingency force elements (FE) are on very short notice to move and require their joint enabling capabilities to be just as ready. This is particularly the case for the Special Operations Command and the Ready Brigade. Special Operations (SO) elements are required to transition quickly from RTS to Operations. Many of the critical enablers for the conduct of SO lie outside of Army. Ongoing modernisation and the development of those enabling capabilities, particularly in the areas of intelligence; airborne ISR; force protection; and strike are critical as part of the Land Force capability base. A standing BCD enables those capabilities resident within the AOC to be seamlessly made available to the FE for planning and execution.

The BCD in RTS would provide a permanent, direct liaison capability between the Functional Commands of Army and Headquarters Air Command (HQAC). This is currently done by the Directorate of Army Air Support, through the Director General Air Command Operations (DGACOPS). DGACOPS has a dual responsibility as the Director General Air (DG AIR), HQJOC. Functionally, there is no need to change the current mechanisms for providing RAAF support to Army RTS. However, by maintaining an operationally relevant BCD within the AOC, the Army also generates the capability to enable joint integration at the Operational Level for Army's Contingency Force Elements. The BCD is to be able to provide the sole mechanism by which all of Army's air support requirements are integrated with Air Force, thus removing the requirement for Army to maintain a separate Directorate of Army Air Support. The BCD could, if directed, manage Army's annual allocation of joint air support resources and provide Army's senior air-land subject matter expertise at the Operational level for matters relating to ALI for operations, contingency planning and training. This includes the provision of planning support to HQ 1st Division for specific advice on air-land operations in relation to the design, force structure and C3 of the operationally deployable elements of the AAGS.

As the authority for managing the Army Air allocation, the BCD would prepare and issue the annual Army Air Support Schedule (AASS) on behalf

of AHQ, reflecting the training requirements and priorities of each of the Functional Commands of Army. Additionally, being located within HQJOC, the BCD could provide planning support for Army commitments within the PMSA that require the integration of joint service air support. Being closely aligned with the current Operations function of the AOC creates an opportunity to optimise the use of Army air hours, but does not change the process through which Army requests RAAF non-platform and logistics support. There is also no change to the manner in which Air Force requests support from Army to achieve RAAF training objectives. The efficiencies created through establishing a BCD capability, within the AOC, absorbing the Directorate of Army Air Support RTS responsibility, leads directly to Army being able to generate the capability to meet directed preparedness requirements and be postured to meet the challenges of an uncertain future security environment.

Conclusion

The Land Component, and by extension the JTF, require ready access to the full suite of ADF and allied aerospace capability. While the requirement for strike, logistic, mobility, ISR has largely remained unchanged since the first military flight took to the air in 1914, technological advancement within aerospace power has transformed the impact that aerospace power now has on the modern battlefield and in particular the land domain. In addition to those tactical level aviation capabilities, the Land Component relies completely on the RAAF (and other air power providers) for the bulk of its air power requirements.

To achieve the level of access and support required to conduct training and operations within the land domain, the Land Component needs to be institutionally embedded at each of the C2 nodes where air power is planned and apportioned. Of utmost importance is the connection at the operational level. The AAGS creates a network of GL Detachments, ALIC's and a BCD working, in concert with their Air Component counterparts within the TACS. This network allows the Land Component to effectively orchestrate its air power requirements in a competitive and highly organised, operational air-land environment.

The BCD is Army's linkage to an AOC where, under the guidance and direction of the Theatre or JTF Commander, the Land Component or Minor JTF makes its case for an appropriate apportionment of air power. The JFACC then directs the Air

Component's rate of effort according to Joint Force priorities. The Adaptive Campaigning - Future Land Operating Concept describes a future environment within, which it is reasonable to assume that the JFACC may not enjoy the same air capability overmatch as it has enjoyed in recent operational environments. So a rigorous process of apportionment followed by allocation to task is required. This process is commanded and controlled within the AOC and is exactly where Army must invest.

The BCD is integrated within the AOC and its many processes to specifically coordinate air power in support of the Land Component plan. It is a vital component of Joint Land Combat capability and more broadly facilitates an aspect of joint operations. A BCD allows Army a 'seat at the table', not just to secure responsive air support, but more broadly to amortise the differences between air and land planning horizons. It facilitates the integration of intelligence, surveillance and reconnaissance capabilities and those emergent capabilities of space, cyber and EW to the land force.

To move forward Army will need to strongly consider its requirement to establish a permanent BCD presence in the AOC at HQ JOC. A formed trained and enabled permanent BCD will not only allow Army to directly benefit from day-to-day integration but also a permanent BCD presence permits the Land Component and the Air Component to quickly come together and apply an integrated effect to support the Australian national requirement.

Endnotes

1. Fundamentals of Australian Aerospace Power, p.18
2. https://www.rusi.org/downloads/assets/RDS_Loader_Feb09.pdf, Air Chief Marshall Sir Clive Loader; *Is True Air/Land Integration Achievable?*, pp.51-52
3. Fundamentals of Australian Aerospace Power, p.121
4. See for example Phillip S. Meilinger, Phillip S. 'Historiography of Air power: Theory and Discipline', *The Journal of Military History* 64(2000), pp. 467-501, and Dennis M. Drew 'US Air power Theory and the Insurgency Challenge: A Short Journey to Confusion,' *The Journal of Military History*, 62 (1998), pp. 809-32.
5. The Joint Air Power Competence Centre (JAPCC) 2009, *Air Power in Countering Irregular Warfare*, Ch.1 p.1
6. AC-FLOC (2009) p.20, <http://intranet.defence.gov.au/armyweb/sites/DLE/docs/ACFLOC.pdf>
7. Fundamentals of Australian Aerospace Power, p.30
8. Fundamentals of Australian Aerospace Power, p.29
9. Australian Archives (Vic), Mp729/7, File No. 37/42/419, 'Air Support: Letter from General Blamey to the Minister of the Army, 14/6/41'.
10. Parkin, R.J., (1995), *The Urgency of War: The Development of Close Air Support Doctrine in the Second World War, From the Past to the Future, The Australian Experience of Land/Air Operations*, pp.48-48.
11. Air Commodore G. Turnbull, (2014) Director General Air Command Operations and Director General Air, Headquarters Joint Operations Command.
12. AOC Procedures Manual Ch2, Command and Control, p.2-5 http://intranet.defence.gov.au/raafweb/sites/AIRCOM/docs/PROCEDURES_061128_AOC%20Procedures%20Manual_CHAP%20_V1.pdf
13. LTCOL A. Garad CO 1st Ground Liaison Group: *An Abbreviated History of the 1st Ground Liaison Group*, at the disbanding of the 1st Ground Liaison Group, 2011
14. CDF Directive 12/09, development of the ADF Air Land Capability, 24 May 2009
15. Air Commodore G. Turnbull, (2014) Director General Air Command Operations and Director General Air, Headquarters Joint Operations Command.
16. AC-FLOC (2009), p.16
17. AC-FLOC (2009), p.17.
18. AC-FLOC (2009), p.17.
19. General Sir Rupert Smith (2007), *The Utility of Force*, Penguin, London
20. AAP 1002 - *The Operational Air Doctrine Manual*, p9.1 as seen in: *Theatre Air Control System Capability Remediation* paper, p.6
21. AOC Procedures Manual, Ch.1, p.1.8 http://intranet.defence.gov.au/raafweb/sites/AIRCOM/docs/PROCEDURES_061128_AOC%20Procedures%20Manual_CHAP%20_V1.pdf
22. AAP 1002.3.2 Royal Australian Air Force, *Air and Space Operations Centre Procedures Manual*, Ed1, p.21
23. Fundamentals of Australian Aerospace Power, p.10
24. AAP 1002.3.2 Royal Australian Air Force, *Air and Space Operations Centre Procedures Manual*, Ed1, p.14
25. ADDP 00.2, *Preparedness and Mobilisation* Ed. 2, Ch 1. p.1-2
26. http://intranet.defence.gov.au/armyweb/sites/chkDoc.asp?S=1141&D=224098&URL=docs/Plan_BEERSHEBA_Backgrounder-TPs_FEB12.doc

Exploiting Network Digitisation

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MSP-A Discussion: Exploiting Network Digitisation

'A SIGNIFICANT CHALLENGE FACING THE JOINT FIRES SYSTEM AS IT TRANSITIONS TO THE FUTURE OPERATING ENVIRONMENT WILL BE THE REQUIREMENT TO MAINTAIN SYSTEMS ASSURITY. SYSTEMS ASSURITY EXTENDS BEYOND A PLATFORM'S TERMINAL CAPABILITIES AND SEEKS THE SEAMLESS INTEGRATION OF SENSOR TO SHOOTER NETWORKS THAT ARE PRECISE IN COMPUTATION AND TEMPORALLY VALID TO SUPPORT DISAGGREGATED JOINT FIRES WITHIN A DISTRIBUTED MANOEUVRE FRAMEWORK. HOLISTICALLY, A JOINT FIRES SYSTEM APPEARS SIMPLE, HOWEVER IT IS A COMPLEX ORGANISM THAT EXISTS THROUGH INTER-AGENCIES AND DEPENDENCIES THAT PROVIDE SENSE, WARN, LOCATE, EFFECT AND ASSESS FUNCTIONS. SYSTEMS ASSURITY IS INTEGRITY FROM THE INTER-AGENCIES AND DEPENDENCIES BY THE COEXISTENCE OF LIKE FRAMEWORKS TO PROCESS AND DISSEMINATE JOINT FIRES INFORMATION RELEVANT TO ALL DOMAINS. DESCRIBE A NETWORK ARCHITECTURE THAT SEEKS TO HARMONISE THE DIGITISATION OF THE JOINT FIRES NETWORK AND MAINTAINS SYSTEMS ASSURITY WHILST CAPITALISING ON TECHNOLOGY.'

The aim of military study should be to maintain close watch upon the latest technological, scientific and political developments, fortified by a sure grasp of the eternal principles upon which the great captains have based their contemporary methods, and inspired by a desire to be ahead of any rival in securing options in the future.¹

The Joint Fires and Effects battlespace operating system (BOS) orchestrates the use of indirect fire weapons, armed aircraft and other lethal and non-lethal means in support of a ground or air manoeuvre plan. Joint Fires includes indirect fire capabilities and the Joint Fires architecture and systems required to plan and coordinate fire, including the requests for joint assets. The

effectiveness of Joint Fires is dependent on the integration of intelligence, surveillance, target acquisition and reconnaissance assets that detect and track targets before a task and provide combat assessment after its conclusion.²

In order for the Joint Fires BOS to harmoniously deliver its sense, warn, locate effect and assess functions in a digital environment, it requires congruent digitised processes and compatible digital systems.

These processes must operate 'like' procedures and functions to enable timely and accurate dissemination of information and orders across a dispersed manoeuvre battlespace. Deviation from such congruence by injections of voice enabled shortcuts or isolated modifications to attack guidance will result in disparities between the agencies operating in the digital network and will degrade situational awareness, confidence in delivery of effects and timeliness of assessment.

Such processes must, therefore, be conducted by digital systems which are not only compatible with each other, but also incorporate Beyond Line Of Sight (BLOS) or similar data amplification systems in order to ensure the Joint Fires network remains integrated and credible across a distributed manoeuvre framework.

Framing the Problem

There is a huge difference between recognising the necessity of something and subsequently describing that something. Furthermore, the effects of an improper definition may have serious, negative consequences on further attempts at understanding and definition³.

Before identifying means and ways to harmonise, enhance or assure a network, it is prudent to define exactly what *network architecture* means to the Joint Fires community. Network architecture is simply the design of a communications arrangement which includes, but is not limited to, the physical

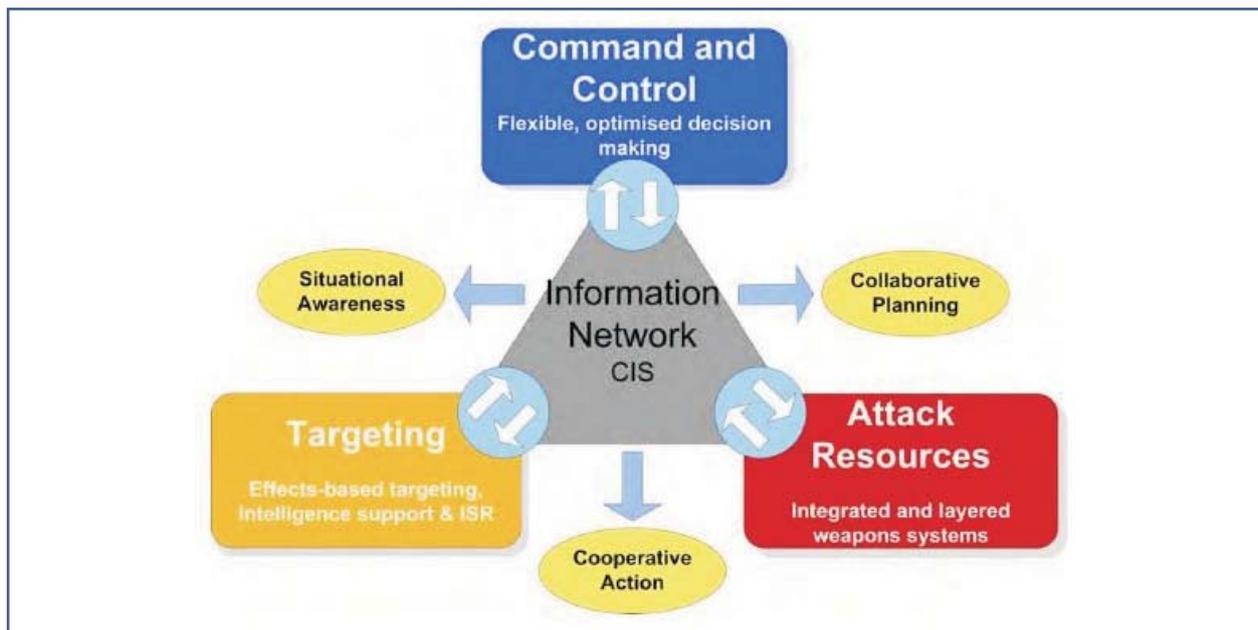


Figure 1. The *Joint Fire Support System Model*⁴ demonstrates the desired network lines of communication and their respective outcomes. Any successful Joint Fires network architecture must enable these outcomes and provide data information exchange points between the three corners – C2, Attack Resources and Targeting.

network. It incorporates the functional status and configuration of all users and determines the procedures which guide the operation of the network. It also dictates the data formats to be used across the network and divides all of these arrangements into layers, which have differing levels of access across users and differing requirements for assurity (see Figure 1).

Systems assurity across the Joint Fires network architecture needs to be constant, common and compatible across the sense, warn, locate, effect and assess functions and other agencies and dependencies whose systems' presence enhances the delivery of Joint Fires, such as ISTAR assets which may provide combat assessment on indirect engagements. Simply put, systems assurity needs to meet five conditions to be considered valid by existing industry standards. These conditions include:

1. *Physical* – such as a primary and alternate means of designated communications link, protected integration of additional net users, protection from hacking and virus, and provision of primary and auxiliary power sources.
2. *Organisational* – such as structuring a hierarchy of all networks and of all network users in order to allow cross-system integration and multi-network user integration.
3. *Principles* – principles for network operation support the identification and application of which networks are available to a system and determine the priority hierarchy of users within those networks.
4. *Procedural* – procedural foundations which are already in use throughout the Royal Australian Artillery (RAA) and Australian Defence Force (ADF) would need to be transferred and applied by all Joint Fires network agencies and dependencies to allow implementation of common data networks, eg AFATDS, and retain adequate flexibility to maintain consistent use of complementary voice networks on dedicated satellite channels and frequency loadsets.
5. *Form* – the provision of information may need to be adapted from the existing templates and procedures to ensure compatible application on both data and voice networks across all agencies and dependencies. The RAA's existing forms of information transfer used on voice networks should provide the basis of the form implemented on data networks.

Network Architecture

Effective C2 is critical to ensuring the right effect is delivered on time, on target and safely. This can be best achieved with common language, procedures, and even more importantly Battle Management Systems. Currently, none of the JFECC C2 devices are compatible...and are unable to provide a common operating (or commonly informed) picture for the JFECC, and more importantly, the MCB Comd⁵.

A command system is a means of dealing with the enduring features of war: friction; danger; uncertainty and chance⁶. In his book *Command in War* historian Martin van Creveld argues that whilst technological advances often expand a commander's options in conducting tactical, operational and even strategic level warfare, they also present limitations.

It has been analysed that despite technological changes in wartime command systems, armies 'have always expended a great deal of energy in the pursuit of certainty about themselves, the enemy and the environment as though this certainty is sufficient to guarantee successful conduct of command in war'⁷. Van Creveld states 'no single communications or data processing system technology, no single system of organization, no single procedure or method, is in itself sufficient to guarantee the successful or even adequate conduct of command in war'⁸.

Regardless, it is indisputable that the fog of war and the previously mentioned enduring features of war will diminish a commander's situational awareness and therefore their decision making ability. A networked force can achieve relative information superiority, meaning a clearer, more accurate and more detailed understanding of the situation than the enemy. This leads to decision superiority which in turn leads to reductions in risk.⁹

Suitable network architecture is therefore vital in the provision of decision superiority and to the provision of effective C2 by a commander to his combat elements. The existing components of the ADF's Joint Fires networks, whilst currently disparate, are entirely capable of achieving compatibility in a harmonious, combined network architecture. Figure 2, over the page, graphically represents this network architecture and demonstrates the suitability of all C2 suites within the existing Joint Fires network.

Systems Assurity

The Army Objective Force Core Land Integration Primary Systems (CLIPS) Joint Fires vision statement specifies that the suite of diverse and layered terminal effects of Joint Fires must be able to support widely distributed ground forces. Importantly, it will provide access to and the ability to integrate with allied, coalition and multinational joint fires effects. Ultimately, the success of the Joint Fires system depends on the quality and speed of information transfer between these sub-systems via the network.¹⁰

Systems assurity of a Joint Fires network has been successfully demonstrated through the recent proofing of the Israeli Defence Force's (IDF) employment of the TZAYAD digital C2 network, complete with a Joint Fires network, which links Divisional and Brigade command elements with sensors and shooters at Company and even Platoon level.¹¹ Throughout recent actions in Operation Protective Edge, the TZAYAD network has incorporated inter-agency and Joint Fires dependency involvement as it has supported digital situational awareness and data exchange between traditional Joint Fires assets as well as air force, navy, intelligence and special operations forces.

The Joint Fires network is engaged and assimilated into the greater TZAYAD network architecture through the *Hot Transmission* integration node, which also encompasses target acquisition and surveillance assets. Operational proofing of *Hot Transmission* harmonisation with the TZAYAD network has occurred during battles in Shuja'iya and Beit Hanoun in August 2014, which have involved distributed manoeuvre from ground elements of the Givati Brigade receiving kinetic and non-kinetic effects from disaggregated Joint Fires elements, including artillery and air force.¹²

Assurity has been provided to the system in this instance not only through the principles, procedures and form being directly compatible, but the physical and organisational pillars have been designed to be applied at the individual level - each digital node is a possible alternate route of data exchange and each node fulfils a clear position in the network hierarchy for priority of communications. The Australian Defence Force's Joint Fires inter-agencies and dependencies are capable of adopting a similarly assured network, albeit under a different network architecture, described below (see Figure 2).

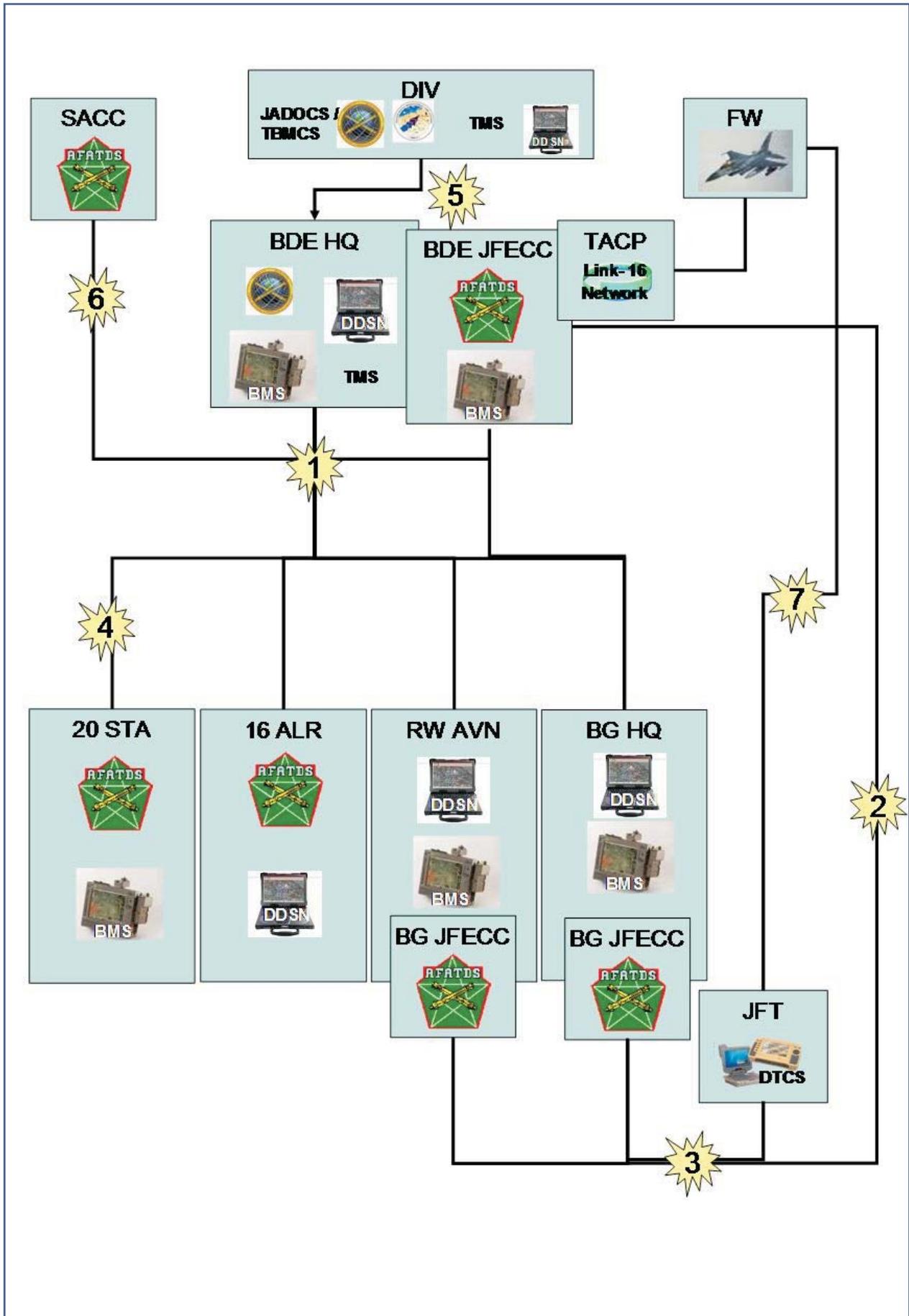


Figure 2. The Joint Fires Network Architecture and Risks to Systems Assurity

Risks to systems assurity of current network architecture are displayed in Figure 2 in the form of flashes along the network links. These assurity risks may be mitigated to provide a network which not only seeks to harmonise the digitisation of Joint Fires but also maintains systems assurity whilst capitalising on technology. This network architecture will succeed in achieving systems assurity through implementing the following mitigations:

1. **Risk:** failure of bearer on Bde data network (physical pillar of assurity).
Mitigation: Bde data net is established with multiple bearers allowing the Joint Fires network to leverage multiple bearers for the exchange of data.
2. **Risk:** disharmony in synchronisation of inter-agency and Joint Fires dependency networks in SECRET layers of access, particularly AFATDS and BMS (organisational and principle pillars of assurity).
Mitigation: employment of Track Management System (TMS) or a similar *Rosetta stone* approach to allow cross-system compatibility and synchronisation and enable existing networks to 'speak' with other despite manufactured differences.
3. **Risk 3a:** AFATDS data network failure (physical and procedural pillars of assurity).
Mitigation 3a: AFATDS data link may operate on alternate means for protocol, data bearers and data procedures.
Risk 3b: Digital Terminal Control System (DTCS) data network failure (physical and procedural pillars of assurity).
Mitigation 3b: DTCS may operate on EPLRS network as an alternate for data procedures. DTCS may also operate via a Beyond Line Of Sight (BLOS) bearer such as those being developed to expand the Project Land 75 BGC3 capability¹³, to mitigate range limitations.
4. **Risk:** Incompatibility of Joint Fires elements and dependencies' data networks (physical and organisational pillars of assurity).
Mitigation: All Joint Fires elements and dependencies should operate AFATDS in their sub-unit and higher headquarters as a minimum in order to provide a compatible medium for the direct exchange of fires data information.

5. **Risk:** Incompatibility of higher headquarters, inter-agencies and dependencies' network protocols (physical, organisational and procedural pillars of assurity).
Mitigation: Bde and higher headquarters may operate TMS and Joint Automated Deep Operations Coordination System (JADOCS) in order to maintain compatibility and synchronisation for data tracks from Battle Management System (BMS), AFATDS and JADOCS and to also provide an exchange point for data information indirectly between systems and across networks.
6. **Risk:** Incompatibility and limited range of Supported Arms Coordination Centre (SACC) data communications with other Joint Fires agencies (physical and organisational pillars of assurity).
Mitigation: SACC may operate AFATDS in order to establish and maintain direct data information exchange and achieve a direct link using BLOS EPLRS bearer.
7. **Risk:** Incompatibility of Joint Fires ground agencies to exchange data information with Close Air Support (CAS) agencies (organisational and principle pillars of assurity).
Mitigation: CAS agencies and Joint Fires ground agencies may incorporate DA Fires component of DTCS to the Joint Fires network in order to allow DTCS to provide a direct data link from the ground element to the CAS airframe.

Implementation

The paper is framed to describe a network architecture which seeks to harmonise the digitisation of the Joint Fires network and maintains systems assurity whilst capitalising on technology.

It is therefore justifiably outside the scope of this paper to detail the means by which such harmonising and assurity-providing technologies may be procured, however it is prudent to briefly describe them.

Implementation of this network architecture and systems assurity would require lines of effort across each of the Fundamental Inputs to Capability (FIC). Of these FIC, the major systems input would require the most resources, including time, to achieve full implementation. Not only would this encompass acquisition of new major systems, it would also

comprise a significant modernisation component which would require consent and congruence across all Joint Fires agencies and dependencies.

The Army Modernisation Handbook describes the transition of the Army-In-Being (AIB) to the Army Objective Force (AOF) through a series of modernisation phases and strategic planning milestones which are linked to, amongst other things, capability and technology.

When a capability gap is identified through CLIPS analysis and a new capability need is proposed, an Army Capability Needs Document (ACND) is generated. An ACND describes a series of needs which relate to one or more CLIPS within the AOF plan, the identified capability gaps and proposed options for their mitigation. CLIPS analysis and ACND provide the information and data required to justify acquisitions to augment capability planned for the AOF.¹⁴

The standard acquisitions phase for Army minor and major acquisitions is relatively lengthy and follows the Defence Capability Systems Life Cycle, described in Figure 3.

A number of other options exist however, and rapid acquisition is potentially a viable alternative to the traditional acquisition process. Rapid acquisition is defined as the acquisition of new capability to be procured and deployed into theatre within the Government approved period of operations. It is normally timescale critical and not previously planned. Rapid Acquisition would normally be confined to readily available commercial-off-the-shelf and military-off-the-shelf (MOTS) acquisitions¹⁵. In the case of the systems and equipment described above, they are all available as MOTS acquisitions, however logistical subject matter expertise would be required to develop the 'operationally imperative' component of a successful rapid acquisition.

Conclusion

*It is firepower, and firepower that arrives at the right time and place, that counts in modern war.*¹⁶

There is a significant amount of information and detail which has been omitted from this paper in order to focus on the main effort - a description of a network architecture that seeks to harmonise the digitisation of the Joint Fires network and maintains systems assurance whilst capitalising on technology. With greater scope afforded, it would have been prudent to discuss BLOS technologies, the relationship between SINCGARS, 188/220C and EPLRS networks and the opportunities for redundancy which they offer each other. Finally and perhaps naturally, given the proclivity of Field Artillery Officers to talk most fondly of Field Artillery matters, it would have been possible to spend more time discussing the network pathways and data transfer opportunities which exist in the DTCS-AFATDS relationship within a gun regiment; however this would have narrowed the paper's focus too much.

The ADF employs capable but, as yet, incompatible systems within its functionally disaggregated Joint Fires network. These systems may achieve congruence through the use of enhanced physical systems assurance provided by amplified or BLOS data information exchanges and *Rosetta stone* approaches to ensure organisational and procedural assurance. The acquisition of these enhancements under non-operational conditions will be a lengthy process which must give due time to the development of the needs, requirement and acquisition phases of a major systems capability. This is a strong case to commence this process as soon as possible.

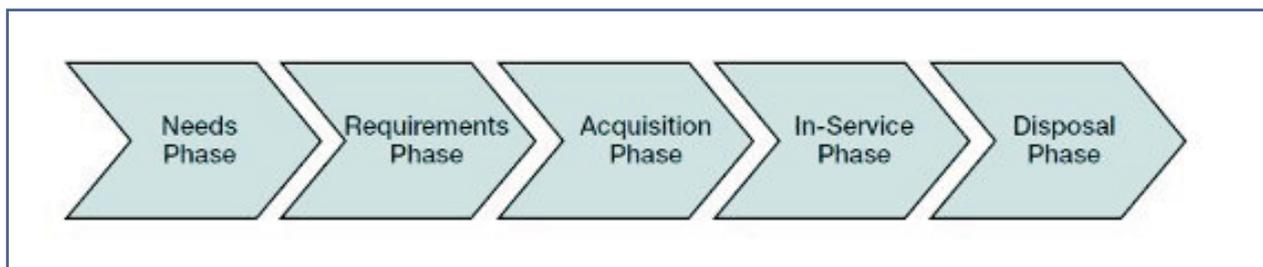


Figure 3. The Defence Capability Systems Life Cycle

Acknowledgements

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Endnotes

1. Liddel-Hart, B.H. 1944, *Thoughts On War*, Faber and Faber Ltd, London, p. 122.
2. LWD 1 *The Fundamentals of Land Warfare* 2008, p. 84.
3. Jones, P. "The Operational' In The Information Age", *Military Operations*, Vol 2, Issue 2, Spring 2014, p. 15.
4. ADDP 3.1 *Joint Fire Support*, 2009, p. 24.
5. Hill, D.J. "Enhancing the Brigade Joint Fires and Effect Coordination Centre", *The Beersheba Papers*, 2013, p. 18.
6. LWD 1 *The Fundamentals of Land Warfare* 2008, pp. 10-11.
7. Smith, C.R. "Network Centric Warfare, Command and the Nature of War", *Land Warfare Studies Centre Study Paper no. 318*, 2010, pp. 12-13.
8. Van Creveld, M. *Command in War*, Harvard University Press, Cambridge, 1985, pp. 7-8.
9. Alberts, D.S. et al 'Understanding Information Age Warfare', *CCRP Publication Series*, 2001, pp. 37-39, quoted in Smith, C.R. "Network Centric Warfare, Command and the Nature of War", *Land Warfare Studies Centre Study Paper no. 318*, 2010, pp. 12-13.
10. *Ibid.*
11. Opall-Rome, B. "Israel Lauds New Capabilities In Gaza", *Defence News*, 16th August 2014 edition, accessed at www.defencenews.com/article/20140816/DEFREG04/308160016 on 18 Aug 14.
12. *Ibid.*
13. JP2097 Phase 1B Networked Special Operations Capability (NSOC) Beyond Line Of Sight (BLOS) Summary Report, 03 Jun 13, p. 1.
14. *THE ARMY MODERNISATION HANDBOOK*, 2011 p. 21
15. *Ibid*, p 60
16. Liddel-Hart, B.H. 1944, *Thoughts On War*, Faber and Faber Ltd, London, p. 122

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Integration of Counter Fires Radars into the Combat Brigade

*Captain Daniel Molesworth
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Background

The removal from service of the AN/TPQ-36 Weapon Locating Radar from the 20th Surveillance and Target Acquisition Regiment in 2010 left the Army with no avenue for maintaining the Weapon Locating, Artillery Intelligence and Counter-fires capability. With 20 STA Regiment's realigning to the Unmanned Aerial ISR capability in 2011, the corporate knowledge inside Army has been diminished over the last three years and only now is starting to crawl back. The rebirth of these capabilities in 2014 will not be achieved on a single exercise or in a single year but require the deliberate growth of corporate knowledge based on the existing doctrine adapted to the new systems and Combat Brigade (Cbt Bde) concept of operations. This paper seeks to promulgate key aspects about the integration of these specialised capabilities into the Cbt Bde and promote discussion about best practice and integration into existing and developing doctrine.

Employment of Radar in the Cbt Bde Construct

The Australian Army is now equipped with the Giraffe Agile Multi Beam (GAMB) radar; which is arguably one of the most capable tactical radars in the Southern hemisphere. The radar is capable of conducting air surveillance and indirect fire detection simultaneously. The key to effectively employing this multirole sensor lies in following ISR, Target Acquisition and Counter-fires doctrine (including artillery intelligence) which promotes that active sensors should not be operated individually. Instead, active sensors should operate in pairs so that one sensor is able to cover the area of interest whilst the other sensor is moving to a new position. This is an important process that

maintains survivability of these high value sensors due to being extremely detectable via electronic means and ensuring that sensors are employed in a layered and complimentary manner in both ISR (Covering NAI/TAI) and Counter-fires plans (including in Target Selection Standards and Attack Guidance Matrix).

With 20 STA Regiment's realigning to the Unmanned Aerial ISR capability in 2011, the corporate knowledge inside Army has been diminished over the last three years and only now is starting to crawl back.

The integration of the sensors into the brigade level ISR plan, the counter-fires plan, targeting cycle and the overall decision support matrix is essential to using these sensors effectively. The full integration into these aspects of the Brigade's intelligence and operation planning and execution will make enable the sensors to contribute broadly, whilst retaining their specific task. All of these elements are interwoven to achieve the end state of these sensors which is to be available and actively detecting at the decisive moment in the battle to confirm or deny the enemy's course of action and contribute to the effective targeting of High Value Targets.

Command Relationships

Exercise Hamel 14 (Ex H14) identified that the allocation of high value radars and the command relationships they are allocated with can have a critical affect on the efficacy of the employment of those radars. Brigade and Joint Task Force sensors should not be allocated to a Battle Group for

geographical placement. Instead, as supported by Artillery and STA doctrine, Brigade level sensors should be allocated Artillery Tasking terminology and the Joint Fires and Effects Coordination Cell (in consultation with the Air Land Integration Cell) is responsible for ensuring the coordination of these elements on the battlespace through the use of Artillery Restricted Area and Artillery movement Areas.

The lack of sufficient numbers and size of these areas and the inability to move radars between these areas due to Battle Groups not providing permission significantly degrades both the effectiveness and survivability of these radars and increases their ability to be targeted. The ability for Brigade level sensors to move must be controlled by the Brigade Joint Fires and Effects Coordination Cell and Air Land Integration Cell and the movement and position information passed to Battle Groups through the Fires network. The use of the command and tasking relationships identified above will allow Brigade level sensors to be fought across the battlespace and is essential in maintaining survivability and effective coverage on the designated areas.

Tasking of Radars

It is essential that high value sensors, such as the GAMB radar, aren't spread thinly across the battlespace in an attempt to cover multiple axis or tasks in an attempt to detect the enemy's actions on multiple fronts. This course of action risks providing non-continuous coverage on multiple tasks whilst also significantly increasing the risk of the sensors being targeted.

Although tasking individual radars onto separate tasks appears as an attractive option to provide perceived wider coverage and decrease the risk of both radars being targeted in one instance, in practice this is not the case. When radars are individually tasked, they are required to radiate more regularly to provide near continuous coverage and also need to either remain in the same location over multiple periods of radiating, or move location regularly; which will ultimately provide extended or repeated periods of no coverage. As a result, tasking radars individually is a risky and fragile endeavour that can be relatively easily torn apart by an opposing force that can apply some effort and resources to detecting, identifying and targeting these radar sensors.

Tasking radars as a pair, whilst restricting their coverage geographically and to a single primary

task, is the most suitable and effective method of employment. It enables at least one radar being able to radiate at all times, taking into account survivability moves and routine and non-routine maintenance. It provides a level of redundancy for the decisive moment of the battle to guarantee radar coverage to detect indirect fire or enemy use of aviation assets.

Detection of Radar Systems

The ability for these high power radars to be detected is often underestimated. Radar emissions travel significantly further than their stated effective detecting range and can be reflected and compounded by terrain and weather. The high power output of radar systems such as the GAMB adds to the range these emissions can travel. For planning purposes, commanders and planners should expect that high powered, directional radar emissions can travel up to three or four times the range of the sensor, and therefore need to account for terrain when planning radar placement and subsequently see terrain not always as an obstacle to radar employment but as a '*backstop*' to reduce the detection range of the sensors.

There is a growing range of sensors and systems that have the ability to detect, identify and locate high powered radar systems such as the GAMB either individually or collectively. These include land based electronic warfare teams, radar systems (through the detection of jamming on a similar frequency spectrum.) However, more potent than the land based systems are the airborne sensors that include airborne control and electronic warfare aircraft, Suppression of Enemy Air Defences (SEAD) aircraft and some rotary wing platforms, all of which have the ability to detect radar emissions. It behoves planners to assume that their emissions from high powered radar systems can be detected and then either confirm this assumption or reduce the assessed threat through analysis of the enemy's air capability and detection ability within this and their land based electronic warfare and radar capability.

Targeting of Radar Systems

Following detection of high value radar systems, the enemy has a range of both specialised and generic means to target these systems to either destroy, disrupt or degrade their effectiveness. The most common perceived threat to radiation emitting sensors is anti-radiation missiles. Some anti-radiation missiles have advanced capabilities

that include inertial navigation to continue tracking on a target that is no longer radiating as well as a loiter capability that enables them to slowly descend and re-activate once a radar emission is detected.

It is dangerous to presume that this is the only threat to these sensors – opposing forces that don't have anti-radiation missiles or air parity/superiority will still target sensors like the GAMB as high value sensors. They will do this by utilising conventional methods within their means to kinetically target these sensors – planners must be cognisant that an enemy with or without a counter-fires detection capability will be quick to unleash their offensive support capabilities to destroy a counter-fires sensor if they believe it will give them the ability to use their offensive support assets in an unrestricted and undetectable manner.

The responsibility and stewardship of these capabilities do not nest within a single unit, but are spread across all Artillery units within the army and the Cbt Bdes.

Consequently, overmatch in Offensive Support terms must be thought of not only in range and number of guns, but in the detect-ability of the use of surface to surface fires by both sides.

Survivability of Radars

The key principle for maintaining survivability of active sensors should be restricting emissions from the radars. The days of operating in a 'no threat' environment where continuous radiation was allowed and even required are over. Instead, a detailed and comprehensive radiation emissions control policy must be put in place by Brigade headquarters as a component of the counter-fires plan in consultation with the artillery intelligence estimates and summary. This policy must derive from the higher Divisional or Joint Task Force radiation emissions control policy and must be developed in consultation with key stakeholders, such as involved RAAF force elements.

A key component of the radiation emissions policy is a robust yet dynamic cueing system to activate the radar in order to achieve the desired effect and contribute to the Brigade counter-fires or ISR plan at the decisive moment. The cueing of radar systems can most often not be achieved organically by the force element that operates the sensor.

However, the cueing system for counter-fires can utilise elements organic within a Cbt Bde, such as Electronic Warfare Teams, Joint Fires Teams and Infantry and Cavalry organic reconnaissance and Surveillance assets.

These elements across a Brigade Area of Operations have the potential to provide an effective passive cueing network, but is dependant on all corps training and a broadening of the fires network. The biggest obstacle to this is the passage of information through the individual force elements' chains of command back to the Brigade JFECC.

The Art and Science of Counter Fires

The above elements that have been discussed infiltrate many aspects of Brigade operations, plans and cycles. Counter fires has a foot in each of Artillery Intelligence, ISR, Offensive Support and Targeting. It attempts to use various elements to cue it and can be affected by assets well above the land battle. It is a complex and multi-faceted problem to effectively employ counter-fires and air surveillance assets to support the Brigade's plans. Brigade level sensors such as the GAMB radar provide a decisive capability in the land battle, subsequently, if these radar and sensor systems are able to be employed in a focused manner at a decisive moment in the battle and cued correctly, they have the potential to be the lynchpin in contributing to the swift destruction of the enemy's indirect fire assets, and in this establish fires overmatch.

In the future it is likely that these assets will become increasingly valuable as the battlespace becomes increasingly complex and interwoven. The advent of more readily available unmanned aerial systems to more state and non state actors will have a significant affect on our ability to safely control and direct airspace and fires. The responsibility and stewardship of these capabilities do not nest within a single unit, but are spread across all Artillery units within the army and the Cbt Bdes. The broad nature of these capabilities requires a focused and inclusive approach to move from fragile corporate knowledge to a robust system and procedures for detecting, identifying and destroying the enemy's offensive support assets.

M777A2 & Australian Army's Future Conflicts

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*Where a goat can go, a man can go;
and where a man can go,
he can drag a gun.*

Major-General William Phillips¹

Introduction

In April 2014, the Directorate of Future Land Warfare presented the Future Land Warfare Report 2014 (the FLWR). Considering the ongoing development of the 2015 Defence White Paper and current state of world affairs, the report provided provisional direction regarding the future challenges facing the Australian Army. Whilst existing force concepts such as the Army's Adaptive Campaigning – Future Land Operating Concept (AC-FLOC) have proven accurate to date, the FLWR joins a long line of publications seeking to refocus the Army's efforts post-Afghanistan. It is only natural that elements within the Army have also sought to assess their part of that prospective involvement.

... the suitability of the M777A2 within the FLWR concept will be examined alongside the potential requirements to fulfil the Army's offensive support needs.

Two years ago, the Royal Australian Artillery (RAA) Liaison Letter and Australian Army Journal contained an extensive article entitled '*Australian Artillery After Afghanistan*'². This short essay does not aim to examine the many conclusions reached in that work. Rather, this essay seeks to focus on a subset of that article, namely the capability of the RAA's current gun platform in delivering the Army's offensive support in contemporary and future warfare. In order to do so, the suitability of the M777A2 within the FLWR concept will be examined alongside the potential requirements to fulfil the

Army's offensive support needs. The outcome will be a detailed analysis of the M777A2, other indirect fire platforms and the issues that the Army and RAA face in the coming years with regards to the delivery of joint fires.

The Meta-Trend Approach

The role of the FLWR is to assist national security planning by analysing the factors affecting the various capabilities of the Army. The FLWR, by its own admission, does not seek to predict the future but to discern the trends of human interaction present in the current global environment³. As a result, five '*meta-trends*' are outlined as the focus of the report, namely: *crowded*, *connected*, *lethal*, *collective* and *constrained*. These '*meta-trends*' (a term that seeks to group the interweaving issues seen in current global activities) provide the guideposts for evaluating the key issues facing the Army.

The points pertinent to examining the capability of the M777A2 are found scattered throughout the analysis of these '*meta-trends*'. Within the *crowded* trend, the increase of highly urbanised, littoral environments means that the developing amphibious construct will become a more central element of land force manoeuvre⁴. The *connected* trend highlights the need to identify redundancies to digital systems if such means fail or are attacked⁵. The *lethal* trend discusses the development of precision munitions, use of targeting systems and the increased protection and mobility of vehicles to ensure communication and '*all-weather precision fires*' can be maintained⁶.

The remaining two '*meta-trends*' highlight issues that do not directly affect the capability of the

M777A2 but affirm its role within the future Army. Firstly, the *collective* trend focuses on the importance of joint operations, reliance on the effects of other services or partners and the push to standardise equipment, doctrine and associated systems with security partners. The introduction and use of the M777A2 is one of the best examples of how the Army is gradually aligning itself with coalition equipment and tactics. The other trend, *constrained*, highlights the continued financial pressures on the procurement and maintenance of assets alongside the need to retain the ability to rebuild capabilities that are eliminated in times of financial strain⁷. The current and likely continuation of fiscal constraints will see the M777A2 utilised well into the future to ensure that the Army gets full use of the capability for the expenditure required to obtain and maintain it.

'Crowded'

The FLWR follows popular commentary in noting that future conflicts will not be fought in the fashion like that seen in Afghanistan. In his latest book, *Out of the Mountains*, David Kilcullen makes a sharp distinction between operational and environmental continuity; that is, the Army is likely to maintain a high operational tempo with humanitarian efforts and unconventional warfare but will do so in environments different to that in Afghanistan⁸. Whereas the conflict in Afghanistan was characterised by remote and landlocked operations, most of the current or potential sites of conflict are dense, highly urbanised locations within the littoral environment. The FLWR, seemingly influenced by the work of Kilcullen and others, adheres to this analysis and the need to prepare for potential amphibious operations.

This preparation is apparent in the development of the Australian Amphibious Concept (AAC)⁹ by the Australian Defence Force (ADF). Despite the fact that the AAC will realistically provide the ADF with the means to engage in low tempo operations and humanitarian assistance¹⁰, it is important to outline what offensive support would be required for the AAC in high intensity, conventional warfare. After all, the fact remains that whilst the ADF has proven itself capable of deterring conflict and coordinating humanitarian responses in the past, its '*core business*' both now and in the future is war¹¹.

It should be noted what the artillery will provide to the commander of the landing force (CLF) facing an opposed amphibious landing. In recent times, the best illustration of an opposed amphibious landing

has been the Battle of Al-Faw in the Second Gulf War in 2003. The battle for key installations on the Al-Faw peninsula involved the significant coordination of effects between the UK's 3 Commando Brigade, the USMC's 15th Marine Expeditionary Unit, air assets and coalition naval gunfire. The ground force was supported by artillery fire provided by four light gun batteries deployed on nearby Bubiyan Island that were critical in providing preparatory fires on known Iraqi positions. The guns were also employed when adverse weather conditions affected aerial assets assigned to the operation.

The last point is pertinent because the capability of artillery to engage in a wide range of weather conditions is a critical asset to the CLF. The guns can also be moved around the objective area to provide covering fires for manoeuvre assets where naval gunfire and air support may not be able to reach. This becomes very important if a landing is planned in an area where the opposing force has use of surface to air weaponry for aircraft and sea mines, anti-ship missiles or similar deterrents for ships close to shore; a point made explicitly in the FLWR¹².

The role of the M777A2 within the AAC is not clear because the M777A2 requires special attention in order to be deployed effectively within a threat environment. The lightweight design of the M777A2 allows for greater transportability by air, land and sea assets than previous 155 mm Howitzers employed by the Army. However, space and weight on a ship will always be at a high premium. The constraints provided by land-based artillery pieces and their associated extensive supply demands are likely to see them given lesser priority on the new Landing Helicopter Dock (LHD) ships compared to other assets that can be utilised in multiple roles in different threat environments. Furthermore, despite its lightweight design, the only Australian airframe capable of lifting the M777A2 is the CH-47 '*Chinook*'. Whilst the Chinook is provided for within the AAC, the limited number available to the Army, its larger overall size and supply demands when deployed all mean that it will not be a readily available asset for gun deployment. When considering deployment by land, the M777A2 is likely to be limited to unloading at conventional port facilities due to the practical limitations with the in-service gun tractor towing the gun ashore and the M777A2's running gear being impractical in rough terrain.

In short, the use of the M777A2 within the AAC and wider amphibious operations is dependant on a number of factors that are joint service related. The availability of shipping space, capable airframes and suitable disembarking locations must all be in the M777A2's favour in order for it to be readily deployed.

'Connected'

The FLWR requires the Army to identify redundancies for those situations where digital communications can fail due to enemy action or equipment failure. This contingency is already well practiced by the regiments operating the M777A2. The issue of gaining and maintaining digital communications is generally an exercise in patience as damage to digital equipment and extended distances between communications nodes is commonplace.

Nonetheless, the greater number of integral digital components on the M777A2 means that there is a greater potential for any component damage to cause the guns to be operated in a degraded manner. Degraded operations are also a significant consideration for future warfare given the threat of attacks on digital communications and GPS equipment. The larger digital signature that each gun and command post now generates creates a bigger target for such systems to track and engage. The RAA will have to adapt the manner it utilises its equipment in order to overcome such threats.

The FLWR expands upon this issue by claiming that the current mindset of the Army assumes that it will fight the same way we did in the pre-digital era but with greater communications and access to data¹³. In addition, the FLWR makes clear that the Army is only just beginning to make the changes necessary to effectively operate with fully digitalised units. This point is pertinent to the operation of the M777A2 because despite changes to doctrine and standard operating procedures, the M777A2's connectivity is often under-utilised because it is deployed like its predecessors. Not only were the M198 or L119 guns more robust platforms in the field environment but they had different needs and capabilities regarding communications and employment. Hasty, pistol gun and dispersed deployments can be more readily conducted with the M777A2 and as such, enhanced training in these methods is required to fully appreciate the capabilities of the gun.

'Lethality'

Despite the advances in regular ammunition types and fuzes, the lethality aspect of offensive support in the future is best expressed in the increased use of precision munitions. Munitions such as the M982 Excalibur are critical to the performance of offensive support within urban and counterinsurgency operations. Whilst reliant on accurate mapping to enable the accurate mensuration and engagement of targets, there are also issues regarding cost and reach that affect the delivery of such lethality.

Furthermore, the role of Reserve artillery units in supporting Regular artillery units will effectively become redundant.

Firstly, the costs associated with developing and employing precision munitions cannot be ignored. Through time, there is little doubt that such costs will be reduced as supply and production values improve. In the meantime, the ability to practice with and utilise precision munitions is restricted by their relative scarcity. Until this situation improves, the fuze-correcting kits and the accuracy of digital fires systems will be heavily relied upon to provide the best results possible with conventional munitions.

Secondly, the range of such munitions is critical but not possible if the guns cannot be moved within range. Whilst the M777A2 has proven incredibly capable at delivering precision munitions, it is ideally suited to airborne operations and for use in fire support or forward operating bases. The logistical burden for the guns is now increased by the demand for power to keep the M777A2's batteries charged. The greater need for generators, fuel, batteries and associated maintenance means that the M777A2 carries a greater logistical footprint than its predecessors. Furthermore, the lightweight frame, digital cables and attachments require a greater level of attention when towed to ensure that the enhanced capability is protected from harsh operating conditions.

Finally, the suitability of the M777A2 in conventional mechanised or motorised manoeuvre needs to be reassessed as the experience of coalition partners has seen the towed M777A2 unable to maintain an equivalent rate of movement to mechanised vehicles¹⁴. The vehicles acquired under the LAND 121 Phase 3B may provide improved the means for combining protection and

mobility of the gun and detachment but in the meantime, the ability to effectively move the M777A2 as a towed piece is limited to the gun's running gear and the capability of the in-service gun tractor.

Outcomes

The key outcome of the above points is that whilst the M777A2 provides a capable and critical component of the Army's offensive support it has several performance gaps that will affect its role in future conflict. There are two options that could be proposed to manage these issues.

Firstly, a limited reinstatement of the L119 gun or introduction of L118 systems could address a significant number of the issues raised. In regards to the AAC, the L119 still represents a significant size and supply burden but at half the weight of the M777A2, its weight is within the limits required for transport by the MRH-90. Given that the MRH-90 will be in greater numbers on the LHD means that the L119 or L118 would be more likely to be available for airmobile deployments. The smaller size and manoeuvrability of light guns will also provide more options for onboard stowage, deployment locations and towed movement once ashore. The L118, if utilised, has a range of 17200 metres, almost 6000 metres greater than the L119. These factors alone would make the 105 mm gun a far more attractive option to the commander of the landing force (CLF). Not only would the CLF have greater control over a land-based asset but would also have less need to rely on naval or aerial fires that could be affected in an opposed landing.

In regards to connectivity and digitalisation, the L119 (and American variant M119) have been significantly upgraded in recent years to include their own digital fire-control system that also include inertial navigation and GPS to independently and precisely determine their geographical position. British and New Zealand L119 guns have been upgraded with the Laser Inertial Pointing System (LINAPS) and integrated Layers Display and Control Units (LDCU) interface¹⁵ which is also utilised on the Canadian M777s. The US Army's upgraded light gun, the M119A3, includes software and hardware component upgrades, GPS, digital displays and digital communication between each gun and their relevant command node. The M119A3 was deployed to Afghanistan in 2014 and has been widely acknowledged by its crews as being faster, lighter, and easier to change azimuth of fire than

the M777A2. Similar care and consideration of the digital components was required as with the M777A2 but the switch back to degraded operations was easily made¹⁶. Whilst the 105 mm round does not deliver the same weight of fire per round, the effects generated have proven beneficial when firing in a range of different missions in support of coalition operations.

The issue of precision munitions is also being addressed in regards to 105 mm ammunition types. Currently, precision artillery munitions such as the Excalibur have only been developed for 155 mm calibre rounds. But there has been advanced development for a precision 105 mm round that utilises the same precision guidance kit created for the 155 mm fuzes. The second increment of the XM1156 Precision Guidance Kit program would see a precision 105 mm round function like the 155 mm variant that will use fixed canards to guide the round to the intended target¹⁷. With an intended circular error probability of less than 30 m and being set by the Enhanced Portable Inductive Artillery Fuze Setter (EPIAFS) currently in service with the RAA, this round presents a viable precision munition for the 105 mm gun¹⁸.

... Army will be expecting a highly portable, highly networked gun platform that the M777A2 provides on paper but struggles to provide in reality.

There are several issues regarding the potential for the retention and upgrade of the L119; the foremost being cost. Despite recent federal budget increases, the cost in re-introducing, upgrading, supplying and training personnel on the L119 could be seen as exorbitant in the current financial climate. The acquisition of the relevant upgrades and munitions could also prove difficult given cost, training and the long periods of time normally required to fill such orders. The burden on the logistics chain with two artillery systems will also be significant. Furthermore, the M777A2 has only recently been introduced to service across all the three RAA offensive support regiments. When coupled with the acquisition of more M777A2 guns to cover the withdrawal of tender for the self-propelled howitzer component of the Land 17 project, there is little chance that the introduction of a digitally upgraded L119 could be completed.

The alternative to this approach would be the acceptance of the shortfalls of the M777A2 and

focus on promoting the role of mortars within future force constructs. Given that the mortars capability is now split between infantry platoons and Reserve artillery elements, it may be decided that close offensive support, especially in amphibious operations, may be delivered more simply by removing guns from the equation.

The obvious shortfalls to this approach - namely the range, limited munition variants and weapon effects that mortars lack in comparison to the guns - may be overlooked for the ease at which mortars can be utilised in a range of environment and force structures. Given the loading and deployment limitations mentioned earlier, mortars do present a limited trade-off of firepower for space and flexibility. The LAND 136 Project to digitally upgrade the current F2 81 mm mortar system highlights the trust that Army has with the weapon system going into the future. The fact that the Army is not looking at upgrading to 120 mm mortars due to weight restrictions¹⁹ and widely adopting the 60 mm mortar means that the intended use of mortars will continue to be man-portable or deployed from vehicles. This may be convenient for the low intensity engagements expected in the future but any hopes of providing large-scale, sustained fires in future operations will be greatly affected.

Furthermore, the role of Reserve artillery units in supporting Regular artillery units will effectively become redundant²⁰. By training and using mortars, Reserve units will not provide any realistic redundancy to the gun regiments operating the M777A2. Additionally, this situation will effectively mean that any high intensity warfare in the future will rely heavily on the three regiments using the M777A2. Given that the FLWR seeks the development of future forces with '*flexible structures and approaches to generate mass and resilience*'²¹, this would be a backward step for both Regular and Reserve units.

Conclusion

The focus on the amphibious operations and future warfare within the FLWR means that the Army will be expecting a highly portable, highly networked gun platform that the M777A2 provides on paper but struggles to provide in reality. The M777A2 is not suited for conventional mechanised manoeuvre and is most effective when airlifted with the CH-47 Chinook and used from firm bases. As such, the concept of three '*like*' brigades under the BEERSHEBA construct will be undermined if the

three gun regiments do not have regular access to train and deploy with the Chinook or if the methods of deployment are not standardised. The connectivity and robustness of the gun will also remain a significant issue if equipment resilience is not achieved.

Despite these shortcomings in the use and deployment of the M777A2, it will be the RAA's sole gun platform into the near future. The M777A2 provides significant advantages in the realm of precision munitions and as such, will face no real challenge from the re-introduction of light gun platforms even when precision munitions in the 105 mm calibre come into regular usage. Financial constraints, supply concerns and training requirements are additional, valid reasons why the light gun capability would not be reinstated. The upgrade and expanded role of mortars in both the Regular and Reserve Army also highlights the move to keep the M777A2 as the sole gun platform.

As noted earlier, despite the analysis of '*meta-trends*' towards low-intensity operations, the Army's core capability must be war and joint offensive fires are an integral part of that capability. Australian guns have not been employed since Vietnam and as the only gun platform now in service, the RAA must utilise the M777A2 to its fullest extent if it expects to overcome the challenge of keeping its offensive support capability relevant to the future Army.

Endnotes

1. Philips W. in Norris, J. 2011, *Artillery: A History*, The History Press, Gloucestershire, p.228.
2. Groves, J., O'Brien, C. and Squire M. 2012, 'Australian Artillery After Afghanistan', *RAA Liaison Letter - Spring Edition*, pp.28-38.
3. Commonwealth of Australia (Australian Army), 2014, *Future Land Warfare Report*, Directorate of Future Land Warfare, Canberra, para 2
4. *ibid*, para 19.
5. *ibid*, para 29.
6. *ibid*, para 35, 38.
7. *ibid*, para 59-61.
8. Kilcullen, D. 2013, *Out of the Mountains: The Coming Age of the Urban Guerilla*, Oxford University Press, New York, p.260.
9. Commonwealth of Australia (Department of Defence), 2010, *Australia's Amphibious Concept*, Version 5.2, Department of Defence, Canberra, para 38, 39(c)(viii).
10. Davies, A. 2011, 'Capability Planning and the Future of the Australian Army' *Security Challenges*, vol 7(2), pp 19-29, 25.

11. Kilcullen, op cit, p 289.
12. Commonwealth of Australia (Australian Army), op cit, para 37.
13. Commonwealth of Australia (Australian Army), op cit, para 30.
14. Junker, K. 2011, '*The Field Artillery in Combined Arms Maneuver and Wide Area Security Operations*' Master's Thesis, Fort Leavenworth, Kansas. <<http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA556295>>, accessed 06 Aug 14.
15. Military Periscope, 2014, 'M777A2' <http://www.militaryperiscope.com/weapons/artguns/towed/w0002569.html>, accessed 06 Aug 14.
16. Price, A. 2014, 'Top Guns' fire first M119A3 in Afghanistan', http://www.fortcampbellcourier.com/news/article_0a42c370-e1f4-11e3-b575-0019bb2963f4.html, accessed 06 Aug 14.
17. Defense Update, 2009, 'Precision Guidance Kit (PGK) Improving the Accuracy of Artillery Fire' <http://www.defense-update.com/products/p/pgk.htm>, accessed 07 Aug 14.
18. Jane's International, 2014, 'Precision Guidance Kit' http://janes.ihs.com/CustomPages/Janes/DisplayPage.aspx?DocType=Reference&ItemId=+++1334572&Pubabbrev=JAH_, accessed 07 Aug 14.
19. Slocombe, G. 2012, 'Funding Approval Given for Army Mortar Replacement' *Asia Pacific Defence Reporter*, < <http://www.asiapacificdefencereporter.com/articles/258/Funding-Approval-given-for-Army-mortar-replacements>>, accessed 13 Aug 14.
20. Groves, et al, op cit, p37.
21. Commonwealth of Australia (Australian Army), op cit, para 23.

The west recalls leaving of the Anzacs to war

Peter FitzSimons

At the going down of the sun, and in the morning, and during the day, and well into the evening ... we will remember them.

And so the sparkling West Australian town of Albany has done on Saturday, 100 years to the day since 30,000 Australian and Kiwi soldiers - soon to be called Anzacs - left our shores on 38 troopships, bound for the Great War.

Back then, all our blokes gazed back until Australia at last sank beneath the horizon - and a staggering number of them were destined never to see it again. This time, the crowds that gathered to mark the centenary of their departure would surely have stunned them.

For no fewer than 60,000 visitors descended on Albany for the occasion, including the Prime Minister, Tony Abbott, and the Governor General, Peter Cosgrove, and the day was marked by a series of ceremonies, speeches and re-enactments.

In the morning there was a re-enactment of the soldiers marching to the ships behind marching bands - a combination of members of the Australian Defence Forces and veterans - through streets lined with wildly cheering crowds, many of them dressed as the citizens would have been back in 1914.

At 11am, a Commemorative Service. At 1pm a convoy of ships headed out of King George's Sound, their bow waves forming a perfect arrow, just as it did then, away ... away ... away.

At Middleton Beach 30,000 poppies were planted in the sand to honour those Anzacs, and to mark that while 9000 Australians and 2000 New Zealanders would lose their lives at Gallipoli, just under 50,000 of them would be killed on the Western Front, most particularly 'in Flanders Fields, [where] the poppies grow between the crosses, row on row, that mark our place, and in the sky, the larks still gaily singing fly'.

In the early afternoon Mr Abbott opened a new National Anzac Centre, an interpretive centre to commemorate the day of departure and what followed. In the afternoon, a concert, featuring songs beloved by troops of the time. In the evening, a gathering of authors and storytellers to talk of the Great War.

All up, there was a wonderful spirit of commemoration - not celebration - on a sparkling day, filled with pressing crowds, reflecting on what happened 100 years ago. Albany did them proud.

Sunday Age, November 2, 2014

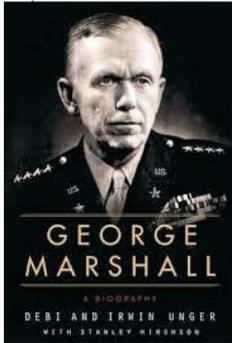
Book Reviews

George Marshall: A Biography

By Debi Unger, Irwin Unger and Stanley Hirshson

Reviewed by Colonel Sean Ryan

ISBN 9780062365743; PUBLISHED 2014; HARPER COLLINS; HARDCOVER; 560 PAGES



Many books have been written about George C Marshall, the great American World War Two General and Statesman of the Cold War. As many will know General Marshall oversaw, implemented or conceived many of the critical events of the 20th century that have shaped the 21st century. In this book, Unger

goes past what many others have written and focuses on the inner workings of a strategic leader and a dignified statesman. The book discusses the pivotal events that shaped a young Marshall. It follows this up with his general ship during World War Two, a war that marked the point when the United States arrived as a superpower. Finally it looks in depth at the challenges he faced as a US statesman after the war. This book reveals both the art and science of being a strategic leader and statesman.

This book reveals both the art and science of being a strategic leader and statesman.

George Marshall was very much shaped by the early events of his life. Events that would play a pivotal role in decisions he would make later in life. Born a Yankee and educated at the South's premiere military school, Virginia Military Institute (VMI), he was not exactly destined to be a leader of leaders but he did learn important values of training, education and communication. As Unger discusses Marshall had a 'topsy turvy' early life with long assignments to the US Far East territories and training assignments with the National Guard. He married early in life but this was cut short with his first wife, Elizabeth (Lily) Carter Coles, death in 1927. Probably the most influential aspect of his early life was his service in the Great War. While

serving as a young commander and staff officer to General 'Blackjack' Pershing he came face to face with the enemy, modern weapons, and the desperately unprepared nature of the US Army for modern war. As Unger discusses, it was this aspect of preparedness that would be central in his thoughts for the conduct of the US Army's next war and his strategic leadership approach.

Finally, Unger discussed in depth Marshall's very personal involvement in the selection of the Army's leaders and field commanders for the Army.

World War Two was the event that made General Marshall. Unger focuses on three aspects of Marshall's role in the war. The first was his contribution to considering and applying grand strategy. The exploration of Marshall's contribution to the 'Europe First' strategy is both intriguing and comprehensive. It is intriguing in that it discusses in detail Marshall's aggressive interplay with his colleague Admiral King, US Navy Chief of Naval Operations, who was an advocate for the Pacific first approach, and UK counterpart Lord Allanbrooke, who saw the Europe strategy in very differently. Unger quotes Allanbrooke in the book as respecting Marshall and an honour to work alongside despite their differences of opinion. The book provides a comprehensive examination of Marshall's pivotal role in the US/UK Combined Joint Chiefs Committee, his personal discussions with Stalin and his most trusted role as military adviser to Presidents Roosevelt and Truman. Additionally the book examines the challenge of raising the US Army to meet the challenge of Hitler's Nazis and Japan's Imperial forces. It discusses both the mechanics of recruiting, equipping and training a multi-million man army as well as his personal foibles of underestimating the number of Divisions required for the mission. It was this underestimation that caused most of his problems during the war in Europe. Finally, Unger discussed in depth Marshall's very personal involvement in the selection of the Army's leaders and field commanders for the Army. In this task he experienced both success and failure. His success was marked by the selection of General Eisenhower as supreme commander and his failure was his 'reluctance to demean incompetence' when relieving under performing commanders. Linked to this discussion was his handling of prickly commanders like MacArthur and Patton, who both struggled with supporting the grand strategy. It is a very personal

look at Marshall as the US Army Chief of Staff that makes this book an insight on his quintessential role in the War.

Finally the book looks at his performance as one of the world's important post war statesman. From envoy and Secretary of State to Secretary of Defence, Marshall would be a man for his generation. Unger writes about his lesser known role as the envoy in US attempts to unite China post the war. An effort that even considered Mao's communist's a more stabilising political option than Chiang Kai Shek's Kuomintang. A recommendation that would see him fall foul of some in Washington and some of his long time friends. But it was his appointments as Secretary of State and Defense that would sign his name in the ages. As the Secretary of State Marshall would advocate and win support from Congress for the European Recovery Program (ERP) or *Marshall Plan*. A plan that Unger identifies as a tool for peace and a policy to contain the Soviet Union. As the Secretary of Defense, he would be central to the relief of a national hero, General MacArthur, in Korea. Unger makes the point that Marshall was not the only contributor but his role and statesman like approach significantly swayed the President in making a decision. It is a decision remembered as living proof that the government in a democracy controls the military.

Finally the book looks at his performance as one of the world's important post war statesman.

Unger's book is a detailed examination of General George C Marshall's strategic leadership and statesmanship. It is detailed account on the challenges of command and the rewards for perseverance. The strengths of this account is the balance in looking at Marshall's character, both his strengths like collegiate approaches and his weaknesses in having too much of a role in selecting field commanders. Marshall led an Army to victory and steered a nation to be a superpower. This book ensures he will be remembered for generations.

Fireforce: One Man's War in the Rhodesian Light Infantry

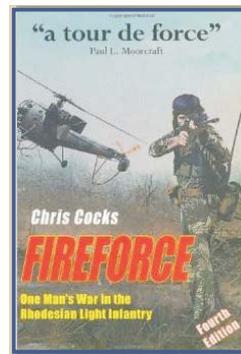
By Chris Cocks

Reviewed by Officers of 109th Battery

ISBN: 158160615X (ISBN13: 9781581606157); PAPERBACK; PALADIN PRESS; PUBLISHED 2009; 368 PAGES

*That is what you are. That's what you all are
... all of you young people who served in the
war. You are a lost generation.*

Ernest Hemingway



Book summary

Fireforce is the first book by Chris Cocks which details his participation in the Rhodesian Bush War as a member of Rhodesian Light Infantry (RLI) during the period 1976 – 1979. The book is delivered as a memoir for this period of the author's life. The book

describes his initial conscription into National Service and his indoctrination into the military reveals to the reader an incredibly Spartan training process for which the apparent lack of compassion was compounded by overarching and ever-present hostility.

This was compounded by an exclusive RLI culture that was disdainful of any person, Rhodesian Security Forces included, who was not a member of the RLI.

Cocks provides an account of his progression from the newest member of the RLI keen to prove himself, to a relative veteran. Incidents of hazing and accounts of Cocks attempting to establish himself within the RLI endear the reader to the author and by extension allows the reader to sympathise with the RLI and its cause. The multinational background of soldiers within the RLI lends to the readers a sense of romantic adventurers drawn to the conflict. Through the course of the war, Cocks and other members of the RLI become comfortable with the violence of their actions to an extent that could be deemed understandable given the natural violence of war.

However, as the conflict intensifies the attitudes of the soldiers towards violence escalates to become vindictive towards their ZANLA and ZIPRA enemies and collateral damage against civilians is considered to be regrettable but acceptable. Cocks finally describes how the attitude of some members of the RLI approached what can be considered apathetic towards their enemies and civilian casualties. This was compounded by an exclusive RLI culture that was disdainful of any person, Rhodesian Security Forces included, who was not a member of the RLI. The execution of prisoners and the mutilation of bodies became frequent and Cocks describes how he succumbs to battle fatigue, eventually seeking to just survive everyday in order to leave the Army.

Throughout the text reading shifts from that of a memoir to an epitaph for a lost generation.¹ His memoir at first appears to describe a generation of international youthful adventurers that were corrupted by what he described as their "parents' war".² Young comrades are presented as rough larrikins that then descend into dark acts of violence, eventually meeting their end on the battlefield or more often survive as aimless loners who seek meaning in stupors of substance and alcohol abuse. Newspaper reports are provided that report tactical victories in a jingoistic and celebratory manner in an attempt to vindicate the actions of the RLI.³ The sub-units of the RLI compete for the largest body count during operations. This is done as an attempt by the author to normalise and justify their actions. *Fireforce* can be identified by the reader as an attempt by the author to exorcise his demons and justify the actions of his lost friends however it falls short in this attempt. Cocks' recollections still maintain overt hatred and disdain for his enemies and are remorseless for acts of violence against prisoners and civilians.⁴ The reader is left to pity Cocks and the RLI but not to forgive them. *Fireforce* is left to the reader as less of a memoir than a confession without repentance.

Key Themes

Cocks' description of the Rhodesian military is that of a Spartan organisation that is attempting to fight a war with limited resources in a dispersed environment. This can be attributed to the fact that following Rhodesia's Unilateral Declaration of Independence in 1965, which was an attempt to prevent the 'winds of change' movement, Rhodesia became internationally isolated.⁵ This is in contrast to the insurgents of ZANLA and ZIPRA who were being supported by international Marxist forces

and enjoyed land based support from similar movements in neighbouring Angola and Mozambique. This isolated situation was amplified by the fact that the white ruling government led by the Rhodesian Front represented a white population of approximately 240,000 people opposed to over six million African Rhodesians. This political and demographic situation led to an Army of less than 10,000 regular soldiers attempting to secure an area twice the size of Victoria. The isolation and desperation of this situation led the RLI to accept more risk than we would deem acceptable, and forced them to improvise with limited resources. This led directly to the development of Fireforce as a military tactic.

The ADF operates a 3:1 force ratio whereas the RLI would routinely employ sticks of four men against a larger, or even a force of unknown size.

Fireforce was a means of vertical envelopment in reaction to the identification of an enemy force. Small helicopter borne sticks of four men were deployed in dispersed locations in an attempt to isolate the enemy force. Individual sticks would be sent to clear creek lines, cave systems or thick vegetation against an often unknown number of enemies. These forces were supported by a Lynx, a slow light aircraft and the Fireforce commander's K-car, an Alloutte helicopter with a 20 mm cannon. These operations were launched from forward operating bases and airfields throughout Rhodesia and RLI members assigned to Fireforce duties would often be moved around the country as required. Enemy action led to the loss of a considerable number of helicopters which could not be replaced due to Rhodesia being isolated in the international community. Cocks describes how the need to maintain a rapid means of vertical envelopment over a large area of operations led the RLI to become an airborne unit that conducted Fireforce by parachute insertion.⁶ As the war progresses Cocks also describes how Fireforce operations become more common taking place almost twice a day eventually leading to extreme battle fatigue for the RLI soldiers involved. Fireforce operations allowed a small army to conduct counter-insurgency operations over a relatively large area with limited resources.

'Risk is inherent in war and is involved in every mission'⁷, however Cocks' experiences highlight the elevated risk threshold that the RLI were willing to accept.

This emphasises the desperate measures taken by the Rhodesians as they faced a long and vicious insurgency. This degree of risk is at odds with the limits that we would deem acceptable in Australian doctrine. The ADF operates a 3:1 force ratio whereas the RLI would routinely employ sticks of four men against a larger, or even a force of unknown size. Whilst this allowed the RLI to maintain operational flexibility, it also greatly amplified the risk of its operations.⁸ The RLI were also willing to insert non-combatant soldiers, such as signallers or clerks into combat to a level which would not be considered acceptable to the ADF. The cross border operations conducted by the Rhodesian Security Forces demonstrate the level of risk that was deemed acceptable. Rhodesian High Command accepted the risk of these raids by 1976⁹ and by 1979 cross border raids were large scale and extensive.¹⁰ This demonstrates the willingness of the RLI to accept more risk than the ADF.

Conclusion

Fireforce is an easily readable account of the Rhodesian Bush War from a soldier's perspective. The reader will gain insight with regards to the application of counterinsurgency operations at a tactical level in a dispersed area of operations. The need for adaptability, acceptance of risk and the interoperability of joint forces in support of vertical envelopment operations can all be drawn from Cocks' account. However in order to gain a full understanding of the larger implications and ramifications of the Rhodesian Bush War the reader must read *Fireforce* in conjunction with other texts.

The true lesson that can be drawn from Cocks' memoir is the danger of unrestrained violence in the name of defending one's own civilisation. The indiscriminate violence of the RLI in order to achieve tactical success would ultimately amplify the strategic isolation of Rhodesia in the international community. Cocks identifies during the prologue that he is battling alcoholism and that he and his comrades have been lost since the end of the war. This sets the tone for the entire book and suggests to the reader that writing *Fireforce* was a means by which he could seek to find closure and justify their actions. The reader is left with the understanding of the true cost of indiscriminate violence in war as being not only the wounds of a lost generation, but ultimately strategic defeat as well.

Endnotes

1. Chris Cocks, *Fireforce, One Man's War in the Rhodesian Light Infantry*, Paladin Press, Colorado, 2007, p2.
2. Ibid p.221.
3. Ibid 81 - 82.
4. Ibid 245.
5. Gowlland-Debbas, Vera, *Collective Responses to Illegal Acts in International Law: United Nations action in the question of Southern Rhodesia* (First ed.). Leiden and New York. 1990, 701
6. Cocks 33.
7. Carl von Clausewitz, *On War*, London, 1874, <<http://www.gutenberg.org/files/1946/1946-h/1946-h.htm>>
8. Cocks 32.
9. Ibid 69.
10. Ibid 227.

The Story of One Australian Soldier

By Major General Donald R Begg, OBE

*Reviewed by Major Alan Smith, ED (Retd)
Immediate Past Editor of Cannonball*

PRIVATELY PUBLISHED; 135 PP & CITATIONS; 10 PP PHOTOGRAPHS; PUBLICATION CURRENTLY NOT AVAILABLE

This autobiography is a timely offering of a career gunner who graduated from the Royal Military College in 1944. Don served in 2/5th Field Regiment at the Balikpapan landing and subsequently during the winding down of the AIF into a 'brand new' Australian Regular Army. They were interesting times. He gives insights into the Regular Army by virtue of his posting to A Battery, where he came under the stern gaze of Major Tim Rodriguez, MC, a veteran of 2/7th Field Regiment, as the depot battery in BCOF's 34th Brigade at Hiroshima. As Wagon Lines Officer he enjoyed the role and gained more insights into regimental operations than as a Gun Position Officer or troop leader.

Back in Australia he was Adjutant of 13th Field Regiment, Adelaide and then, the plum appointment to the Long Gunnery Staff Course at Larkhill in 1951 came his way. He got glowing reports from the DS, and missed out on an A pass by one mark. His account of this posting is one of the three 'high points' in his narrative. Your reviewer, having had service in a British Army armoured division's SP 25 pounder battery, was disappointed in that he assumed his readership would know just

how different regimental service as a Troop Commander in 4 RHA would be. If it gave him a 'buzz' – we are not told. This also sets the bar for his subsequent more interesting postings.

Then came the bombshell - Dick Cubis, Commanding Officer 1st Field Regiment at Nui Dat, South Vietnam - sacked by the task Force commander for refusing an order involving close supporting fire of the infantry.

He returned (now with family) and a Major to be BM HQRAA of 2nd Division, where he discovers the trials and tribulations of housing and studying for staff college – but again we read little of what impact he had on Citizens Military Forces (CMF) artillery practice and gunnery standards. Next stop was Staff College at Wellington, India, where he passed out well. While at his next Army Headquarters posting he was promoted to lieutenant colonel and by virtue of his getting on well with the Indian and Pakistani officers at Wellington was the reason given when he was selected his next posting was as Military Attache in Cambodia. This gave him many interesting insights into the Vietnam war.

Next career stop was to Commanding Officer and Chief Instructor at the School of Artillery preparing gunners for service in Vietnam. Then came the bombshell - Dick Cubis, Commanding Officer 1st Field Regiment at Nui Dat, South Vietnam – sacked by the task Force commander for refusing an order involving close supporting fire of the infantry. Don Begg packs his bags, and finds when he gets to Nui Dat that the artillery layout is not suitable for all-round defence. One could be excused for asking, 'What principles do they teach for promotion exams, staff college ? or – better still, why don't they remember them!' Begg discovers that the gunners were never involved in operational planning, and nor was he while he was there serving under two Task Force commanders. He also finds the Kiwi battery is not 'under command', but only 'in support'. The reason? One paranoid BC. No 'DS solution'? Obviously not.

Don's next posting was Commanding Officer, as colonel and with an OBE for his Vietnam service, of 3rd Training Battalion and the Singleton Area. Here, to his great satisfaction, he savours family life and the local kudos that goes with the posting. Don makes some interesting observations about the educational standards and dental hygiene of the National Service Trainees. His next two postings

continue his domestic bliss – Director of Equipment Policy at Army Headquarters, Canberra, where he owns his first home, and was promoted to Brigadier before he attended the Royal College of Defence Studies, UK in 1972. Here he is full of admiration for the British way of structuring 'learning' in its broadest sense. Not only that, the course members visit factories, and the course visited all the key countries except those in the east. They covered much ground, including communist countries, and Begg obviously enjoyed these experiences.

In summary, this is an important book by virtue of the fact that Begg embraces a social phenomenon new to Australia - governments responsible for a Regular Army in an ever-changing world.

Don titled his last chapter as 'Australia- Another New Job'. He quizzes the CGS on what are his duties. 'They' don't know but Brien Forward puts him up in his department, Army Development. His curiosity was abruptly satisfied when the CGS burst into his office, 'Congratulations, General. You are to take over Logistic Command. See the VCGS for details.' Then we were gone. Having only being a Brigadier for a year or so, he regarded this 'accelerated promotion' as a happy event, but not so where he was to live – Melbourne. His appointment coincided with Darwin's Cyclone Tracy and working with Major General Stretton, where he recounted that a lot of rules had to be 'bent' to settle the evacuees. By this time Don Begg did not like the way the army was being run, and after 18 months in Melbourne he resigned and went to live at Terranora, Queensland.

In summary, this is an important book by virtue of the fact that Begg embraces a social phenomenon new to Australia – governments responsible for a Regular Army in an ever-changing world. While one can quibble with his focus at times on his domestic (like 'letters to mum and dad') issues the various agencies in the Army responsible for them do not come out at all well. Nonetheless, this reviewer would like to have read much more about his contribution, not just to the ARA – which was considerable - but to our corps, especially between 1945 – 1966.



AUSTRALIAN ARMY CAMPAIGNS SERIES

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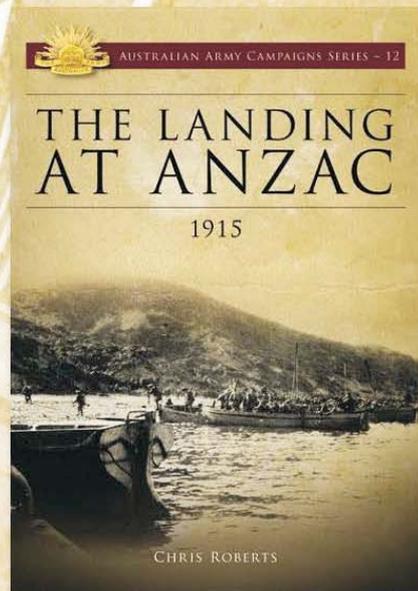
The Landing at Anzac, 1915 challenges many of the cherished myths of the most celebrated battle in Australian and New Zealand history — myths that have endured for almost a century. Told from both the Anzac and Turkish perspectives, this meticulously researched account questions several of the claims 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.



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- Advertising through military trade publications nationally including Army Newspaper.
- Reviews through internal Defence publications.

Specs

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AUSTRALIAN ARMY CAMPAIGNS SERIES – 16

THE OTTOMAN DEFENCE AGAINST THE ANZAC LANDING

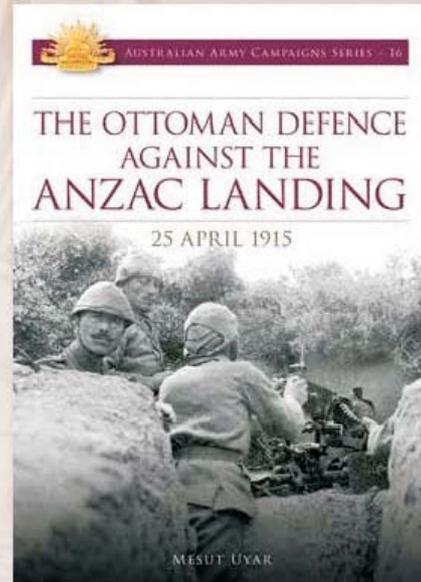
MESUT UYAR

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.



Key Selling Points:

- Part of the highly successful Australian Army Campaign Series.
- Full colour with low RRP of \$19.99 provides great value for money.

Marketing Highlights:

- This book will be released with *The Landing of Anzac 1915* which tells the Australians 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.

Specs

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Around the Regiment

Regimental Conference & Farewells

Major DT (Terry) Brennan
Editor RAA Liaison Letter

Phrase of the Conference 'Digital Kill Chain'

Introduction

The most recent Regimental Conference and Farewells were held over the period Friday 31st October to Sunday 2nd November 2014. The conference was preceded by the recently re-established artillery command post exercise involving the School of Artillery, all Regiments as well as representatives from the School of Artillery RNZA.

The conference format whilst slightly adjusted from recent conferences still contained all the traditional elements starting with a Regimental Committee meeting followed by the Conference agenda proper over two days. As is tradition, the Regimental Officer and Warrant Officer and Senior Non Commissioned Officer farewells were held in conjunction with the conference on the Friday and Saturday nights respectively.

An extra phase of the program was a School of Artillery static capability demonstration for those being farewelled. Major General Michael Crane who was one of the senior farewell's had expressed a desire as an old 'steam gunner' to see up front and hands on, the latest artillery capability acquisitions that have been recently introduced into service.

Conference Overview

The conference commenced with a series of Artillery focused discussion points posed by Head Modernisation & Strategic Planning – Army. These included RAA responsiveness to FGA; enhanced human performance; distributed manoeuvre; exploiting networking and digitisation; information dominance and simulation.

The observations from the audience were wide ranging and often insightful. It was highlighted that when it came to 'distributed manoeuvre' there was a shortfall or deficiency at the Task Force Joint Fires cell / Divisional Artillery level. This conclusion was certainly not a new challenge. The RAA has always encountered problems with co-ordinating artillery along with fire from joint assets since the disbandment of Headquarters 1st Divisional Artillery. The question posed by HOR was 'Where to from here?'

'Exploiting networking and digitisation' generated significant discussion. The consensus was that innovation and related advances in technology were moving faster than Defence including Army can amend policies and procedures to accommodate the changes and therefore embrace the benefits and advantages that are being offered. The observation was made that within Army and DMO the difficulties in undertaking timely capability upgrades was a 'cultural problem'. This led to a brief discussion on interoperability implications during which HOR warned you 'want the freedom to play and adopt things yourself'. HOR cautioned about losing flexibility to exploit capabilities based on lessons learnt locally and cited the need to retain freedom to amend procedures such as with AFTADS. HOR concluded by observing 'technology was moving faster than our compliance system'.

In relation to simulation the question put was how can artillery increase the use of simulation, and ultimately does the requirement to live fire still



exist? The Commanding Officer 4th Regiment stated that *'simulation does not guarantee you can do the job'*. HOR provided the example where a navy air warfare destroyer still requires *'real'* submarines to fully test its war fighting capabilities.

HOR said he accepted there was still a requirement for the gunline to live fire however he was not convinced the need was still high for observation post members to observe live rounds in training.

He summarised by saying there was a need for a simulation argument that was logical and understood throughout the Regiment. He indicated this was essentially *'simulation is very good but that it was essential to articulate what it could not deliver eg. simulate fatigue'*.

The CO/CI of the RNZA School of Artillery Major Sandra Patterson delivered a comprehensive brief on the current status of artillery in New Zealand and the vision for the way forward into the future. She explained that part of the vision was to have a *'degree'* of interoperability with the RAA. Major Patterson said that in practical terms this interoperability could be in the form of contributing guns and/or observers to an Anzac force. Major Patterson expressed a view that this arrangement be formalised as a bi-lateral agreement between the RAA and RNZA. This was a *'key'* challenge looking to the future.

Previously this goal was relatively simple to achieve as the two countries had the same equipments and consequently the RNZA used RAA doctrine. Unfortunately this is no longer the case. Other challenges included maintaining a JTAC capability without any strike aircraft in the New Zealand ORBAT.

There was a comprehensive update on Land 17 (M777). The key message was that as a consequence of the Australian Government decision not to purchase a self-propelled gun capability each Regiment in the RAA would now be equipped with three *'4 (M777) gun'* batteries. The task was to secure the additional personnel necessary to man the extra guns. In support of LAND 17 new gun tractors to replace the aging *'Mack'* gun tractors were part of the Land 121. It was highlighted that new enhanced 81 mm mortars similar to those employed by the USMC were in the program.

The CO/CI School of Artillery, Lieutenant Colonel Dave Edwards, provided a thorough training update. He spoke of the changes which were being implemented as a result of the recently introduced capabilities. To highlight the technological, doctrinal and cultural changes occurring he cited as an example that there was *'no director'* on the gunline anymore. For those traditional *'steam*

gunners' the words '*aming point director*' will no longer drift across the gun position.

The CO/CI indicated that the CO of the Defence Intelligence Training Centre supported the development of a common ISR training package. He also spoke of the counter UAS capability and the need to exploit opportunities to sell this to the wider Army.

Lieutenant Colonel Edwards said that Radio, Digitisation and Support Wing (RDS Wing) which included Samuel Tristram Troop (Holding Troop) had been established. He highlighted that the Troop was responsible for the development of basic warfighting skills and personnel management of soldiers about to undertake initial employment training. He also mentioned the focus of the physical training instructors was primarily on preparing individuals for the Physical Employment Standard (PES) test as well as developing a '*culture*' of physical training.

The CO/CI said 53 Battery would '*retire*' the 105 mm Hamel gun in December 2014 and that he hoped it would be '*rounds complete*' by St Barbara's Day. He further advised that Motorised Combat Wing responsible for PMV (Bushmaster) training was to be disbanded in December 2014 and would be re-established and operating at the Army School of Transport by January 2016.

Lieutenant Colonel Edwards observed that it was a '*myth that digitisation will reduce the size of headquarters*'. He said this was not true just as with the introduction of computers the '*paperless office*' was a flawed concept. He explained that the impact of digitisation was the '*shifting of where work was carried out*'.

He concluded with an observation that the 2nd Division had reported that since the artillery had assumed responsibility for mortars that in terms of level of support and related capability outcomes the feedback was that this was more professional than it had been previously.

Lieutenant Colonel Corey Shillabeer delivered a wide ranging presentation entitled '*Future Army - Building on Beersheba*'. He emphasised that first and foremost in Army '*our people are our capability*' and the key goal remains improving the cognitive and physical abilities of individuals and teams to provide us with an edge in the future. He highlighted some of the anticipated strategic challenges facing Army in the future and observed that during the Force Structure Review the need to

modernise artillery capabilities across all streams was widely acknowledged and supported.

He referred to the Army's '*Archipelagic Manoeuvre Concept*' and the need for Army to contribute more to Australia's maritime strategy as a key component of the Joint Force. Potential future capabilities being pursued include long range precision strike, eg, HIMARS (High Mobility Artillery Rocket System) battery's, to support the Joint Force, as well as provision of a land based maritime strike capability for use in the littoral. Both of these capabilities potentially reduce the burden placed on RAAF and RAN platforms, freeing up valuable resources for use in other roles

Lieutenant Colonel Shillabeer also spoke of a range of other possible joint fires and artillery capabilities under consideration which will potentially meet the requirements of the '*Future Army*'. He indicated that the requirement for manoeuvre and protection in the future will persist and that an armoured mortar system may be of more practical use than self propelled guns and towed guns in an urban littoral environment. He touched on the implications of unmanned aerial vehicles (UAV) in the future observing that command and control of UAV in the future battlespace will be problematic. He highlighted that the armed UAVs will be a capability resident in the Joint Force in the sooner rather than later.

HOR observed that it was difficult to provide feedback on the '*Future Army*' concept and documents whilst the Force Structure Review remains underway. He added that in his view there were problems with the mechanisms in order to provide feedback. He also said he was concerned about the ability to foster real debate.

Major Pete Wiles from the Combined Arms Doctrine and Development Section (CADDs) provided a brief on the world of doctrine with a focus on artillery. He highlighted that CADDs was now part of the Army Knowledge Group. Major Wiles said that safety and small arms policy was now a responsibility of Army Knowledge Group. He highlighted the current key doctrine priorities within CADDs as well as the challenges including offensive support safety in particular trajectory danger areas and the '*delicate*' subject of the need for the '*traditional*' safety board. On the subject of safety boards Lieutenant General Ash Power during an interview for the Liaison Letter in 2011 when asked about safety observed:

Given all the advances to address the Gunnery problem including digitisation with AFATDS Safety procedures (safety board, etc.) have essentially not changed since you were a GPO in 107 Field Battery. Would you care to comment?

Fire still needs to be accurate, timely and responsive and we need to deliver it safely. If we are still using the old safety boards then that is a little disappointing...but it worked for me.

Major Colin Wardrop the Australian Army Artillery Museum manager provided a short update on the situation with the museum before inviting everyone to join him for the official opening of the interim artillery museum collocated with the armoured museum at Puckapunyal by Brigadier Gerry Warner, the Representative Colonel Commandant. He indicated that in addition to this there would be an expanded element of the museum guns and equipment located the School of Artillery. He concluded by confirming it had been agreed to re-establish the Museum Advisory Committee.



Head of Regiment Brigadier Peter Gates CSM & Australian Army Artillery Museum Manager Major Colin Wardrop at the opening of the Artillery temporary museum collocated with the Armoured Museum at Hopkins Barracks Puckapunyal.

HOR said that with regard to the proposed new combined artillery and armoured museum he had spoken with the RAAC HOC as well as Major General Rodger Powell (Retired) the RAAC Colonel Commandant. He was pleased to advise that the RAAC has agreed to work with the RAA to try and expedite the new museum facility.

It is currently disappointing to see that the Armoured Museum and hence the interim collocated Artillery museum is closed to the public due to security restrictions on access to the Puckapunyal military cantonment and the base more widely. Whilst acknowledging that museums exist for training purposes as well as for visitation by the public, this limited access situation highlights the need for a new museum facility on the boundary of the base.

Brigadier Gates observed that as the wide range of artillery associations, especially those from World War Two and afterwards, cease to function effectively or close that the members are becoming increasingly concerned that their legacy will be lost. He indicated that AHU was establishing a methodology whereby the history and related heritage assets of these associations can be transferred from private to public ownership.

HOR concluded by making a series of comments regarding the relationship between the RAAHC and the AAAM and the associated evolution of the relationship between the RAAHC and Army History Unit (AHU). He indicated that the vision and goals of the two organisations were very different and hence their priorities. He said the RAAHC was focused on fostering a national network of like minded organisations whose shared goal was the promotion and preservation of artillery history and heritage. Whereas the AHU focus through the AAAM was the preservation of artillery equipment for use as aids for technical education and training, eg equipment principles at the School of Artillery. To provide some context to the conflicting goals HOR observed that when he was CO/CI of the School at Puckapunyal he found it frustrating the museum was still located at North Head. He acknowledged there were still some deep seated feelings within the RAAHC towards AHU due to a number of broken promises.

Whilst not directly related to museum matters the HOR encouraged everyone to support the endeavours and initiatives of the RAAHC. He drew attention to the Great War Commemoration '18-Pounder Project' describing it as 'Being pretty cool.' He highlighted the RAAHC was seeking donations

to assist with funding the project which are tax deductible.

Brigadier Warner closed the discussion by observing that his predecessor, Major General Tim Ford (Retired), had worn 'two hats' as the Representative Colonel Commandant as well as being Chairman of the RAAHC, which he felt had 'blurred' the lines between the two organisations. Brigadier Warner noted that some people had thought he had been too silent on the issues between the AHU and RAAHC. He said that on assuming the appointment of RCC he deliberately backed away from the RAAHC space.

At the conclusion of discussion everyone moved to the School of Armour for the official opening of the interim artillery museum housed in the RAAC museum complex in Hopkins Barracks. The museum was officially opened by the Representative Colonel Commandant and to mark the occasion he unveiled a plaque and signed the visitor's book.

Regimental Committee Meeting

The Regimental Committee meeting was well attended with the only key members unable to attend being Colonel Ian Ahearn, Colonel Commandant Eastern Region, Brigadier John Cox, Chair of the History Sub Committee, and the Regimental Master Gunner, Warrant Officer Class One Mat Sullivan.

The key agenda items were the adoption of the revised RAA Standing Orders and the Gunners Fund. With the cancellation of the military pay allotment there was discussion that commanders should be encouraging all Gunners to arrange a fortnightly direct debit payment from their pay.

The RCC also stressed that the RAA Strategic Plan and supporting plans (Communication, Heritage and Financial) were extant and he encouraged everyone to ensure they were familiar with them. It was agreed to commence a review of the Strategic Plan overseen by DHOR.

It was also agreed that consideration should be given to changing the date of the next 'National Coral Gunner Dinner' which was scheduled for May this year. Post the meeting after discussions with a range of people it was agreed by RCC and HOR to reschedule the next Coral Dinner to May 2016.

Officer Farewells

The Regimental Officer farewells dining out night was held in the Regimental Officer's Mess. The



Colonel Shane Amor CSC being farewelled by Brigadier Wayne Goodman, AM

dinner was hosted jointly by Brigadier Gerry Warner and Brigadier Peter Gates. The evening was a very significant event not only because it was the first farewells held since 2010 but those being farewelled included Lieutenant General Ash Power and Major General Michael Crane, two senior officers who have made a significant contribution to not only the Regiment but the Army and Defence more widely.

During the evening eleven officers with 20 or more years of service to the Royal Regiment were farewelled. In addition to General's Power and Crane, these were Colonel's Shane Amor, Dave Connery and JP Smith; Lieutenant Colonel's Tim Griggs, Peter Hodge, and Peter Murphy; and Major's Steve Silver, Andy Straume, and Mat Taylor.

These eleven officers between them have offered our nation in the vicinity of an amazing 293 years full-time and 59 years part-time military service.

The combined officers and sergeants dining room was overflowing with some 110 members and guests attending the dinner. The guests included recently promoted Major General Greg Bilton and Major General's Paul Symon and Paul Stevens (Retd)

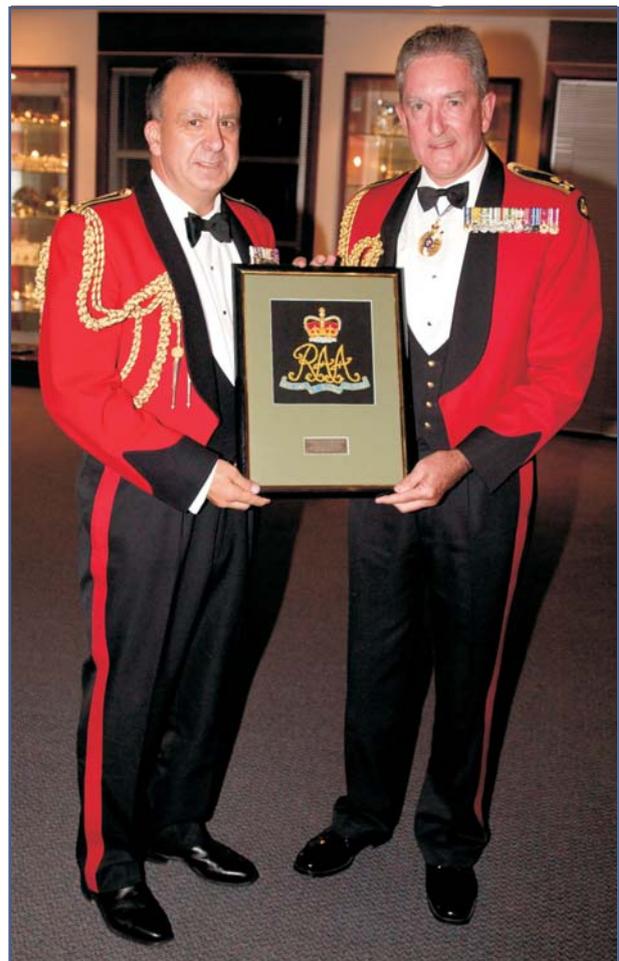


Major General Paul Symon AO farewelling Major Andy Straume

as well as Colonel Frank Colley (Retd) the former school CO/CI who coined the phrase 'A move for advantage' as he moved the School of Artillery from its long standing home at North Head in Manly to Puckapunyal. I would also like to acknowledge the attendance of Christopher Jobson (former Regimental Sergeant Major of 4th Field Regiment and the 3rd Brigade) for joining those being farewelled.

It was a night of great farewell speeches and even more heartfelt and insightful responses. The evening was a long and memorable night for everyone in attendance for a raft of varied and memorable reasons. I would like to thank a particular 'Colonel' who is a great supporter and promoter of the farewells and the Royal Regiment more widely who unfortunately was unable to attend last year due to the tyranny of distance. He went to significant effort to put money over the bar after the dinner to ensure the festivities continued long after the formal part of the evening had concluded.

Whilst working as a Ground Liaison Officer with the Royal Australian Air Force I had a theory that if the Air Force did something more than once then it was adopted as a tradition. Along the same lines at the farewells in 2008 with the subtle urging of a number of senior officers present I was encouraged to conduct an impromptu 'roll call' of past and present commanding officers present at the dinner. As result of this occurrence I inherited the role of roll marker at this dinner and each subsequent dinner. Given the time lapse since the last dinner I did not raise the possibility of a 'roll call' with the dining president Lieutenant Colonel Dave Edwards. I had forgotten that Major General Symon, along with Major General Crane, has a long standing attendance record as regular guest at our Regimental farewells and further that he has a memory like a steel trap. Consequently as the evening drew to a close he sought the conduct of a commanding officers 'roll call'.



Major General Michael Crane DSC and Bar, AM and Lieutenant General Ash Power AO, CSC after the farewell dinner held in their honour.

The 'roll call' result at this dinner was: 1st Regiment – three; 4th Regiment – four; 8th/12th Regiment – one; 16th Air Land Regiment – two (Colonel Shane Amor was included as a former CO 1st Ground Liaison Group); 20th Surveillance and Target Acquisition Regiment – one; 23 Regiment – one; and School of Artillery – six. Colonel Dave Connery attempted to alter the rules of the count requesting he be included having been a former commanding officer of the University of Sydney Regiment. As the only judge and adjudicator on the rules of the 'count' much to his disappointment I immediately ruled his claim invalid. The dedicated attendance by School of Artillery CO/CI resulted in them being the clear winner, with the 4th Regiment as a commendable but distant second.

It is anticipated the next officer farewells will not be held until 2016 at the earliest. Therefore once the date is confirmed and published I urge everyone but especially those eligible to be farewelled to put the date in their calendar. I appreciate this probably goes without saying but the farewells are only as good as we as a Regiment make them. The key contributing factor to what creates a very special farewell atmosphere and successful evening is the presence of the friends and colleges of those being farewelled who take the time in their busy schedules and make the effort to farewell those with who they have served.

Warrant Officer & Sergeants Farewells

*Warrant Officer Class One Anthony Hortle
RSM School of Artillery &
PMC Regimental Sergeants' Mess*

The farewells in 2014 was again a great success to say the least. We cheerfully sent off some terrific characters of the Regiment, who we hope to see in years to come again. The characters were:

- Raymond 'Red' Skelton – *The nude cricketer.*
- Darren 'Debbs' Deeble – *How did someone steal so much from under your nose?*
- Paul 'Gals' Galloway – *We got \$2.00 for your television.*
- John 'JJ' Hennessy – *Has he ever left?*
- Stephen 'Morsey' Morse – *Probably the only bloke who has served in all the Regiments.*

Following last years efforts the Farewell Committee excelled themselves and much thanks should be

praised on Warrant Officer Class Two's Toby Organ, Neil Bertram and Dean Smith, with great support from Scott Chivers, the Sergeants Mess Treasurer. Thanks must also go to the Senior Non Commissioned Officers and Warrant Officers serving and not serving who attended.



The 2014 Farewells saw the introduction of a 30 year plus gift that will hopefully be an ongoing gift for years to come, a spectacular sculpture of the Artillery Crest on a wooden base.

This year we hope to farewell the majority of Warrant Officer Class One's who have left us over the past years and introduce a new 20 years plus gift. Please show your support to the Regiment and those to be farewelled. A date is tentative at this stage, however September / October 2015 is looking like the area to keep clear in your diaries.



Evolution of 4th Regiment 2008 – 2015 & Beyond

*Lieutenant Colonel Damian Hill
Commanding Officer, 4th Regiment, RAA*

The Regiment (and Corps) has undergone significant change in the last five years, and it is appropriate as we move towards a period of consolidation that I provide an update to the wider RAA community on the recent changes to 4th Regiment and the structure from 2015 onwards. I have received many queries in recent months and I hope this provides an appropriate degree of information to those who are interested. It is not intended to explain why, but merely what has happened.

In 2009 the Head of Army Modernisation released a Directive on the Army Force Modernisation Plan for the RAA (Field Artillery) Capability. The Directive's aim was to provide direction and allocate responsibilities and tasks for the reorganisation of the RAA Field Artillery capability over the period 2011 to 2017. The key elements that had the most pronounced impact on the 4th Regiment were the reorganisation of Field Artillery units and the reorganisation of the employment categories.

The 2010/2011 Reorganisation

The directive described the reorganisation of Field Artillery units for new structures commencing in January 2011. This included the naming convention of 4th Field Regiment, RAA to 4th Regiment, RAA. The Regiment was to comprise the following:

- a. a unit command and Regimental Headquarters element;
- b. an operational support element;
- c. three Observation Post Batteries each comprising a Battle Group Joint Fires and Effect Coordination Centre (JFECC) and sufficient Joint Fires Teams (JFT) to support Combat Teams within the manoeuvre units of the supported brigade;

- d. a Gun Battery comprising a Battery Command and reconnaissance element; an A1 echelon; and three Gun Troops of four guns; and
- e. a Combat Service Support Battery.

What this equated for the 4th Regiment was the following naming conventions:

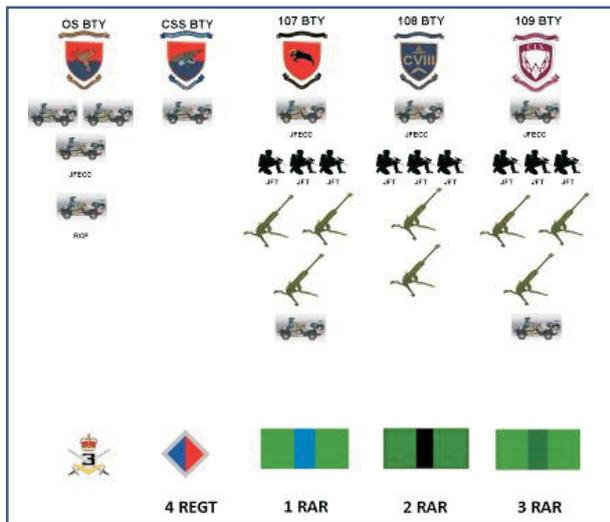
- a. 107th (Gun) Battery;
- b. 106th (Observation Post) Battery;
- c. 108th (Observation Post) Battery;
- d. 109th (Observation Post) Battery,
- e. Operations Support Battery (Regimental Headquarters and the brigade JFECC); and
- f. Combat Service Support Battery.

During 2010, the 4th Regiment established the new structure, with the exception of 106th Battery which was not raised. The Regiment maintained this structure until early 2012.

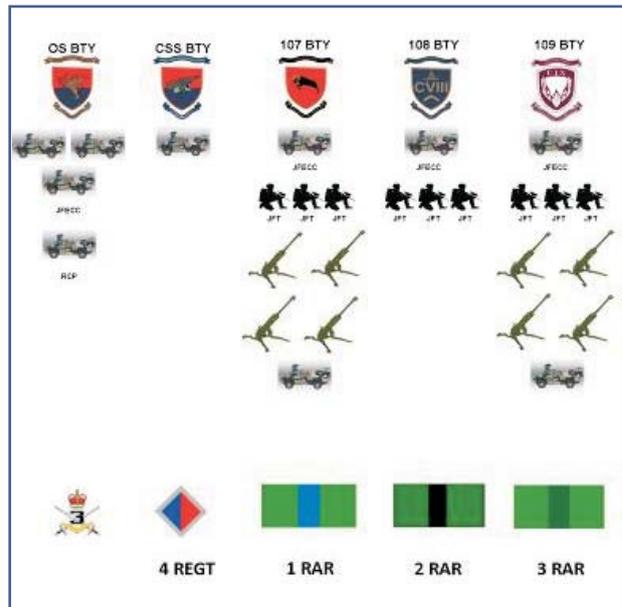
The 2012 Reorganisation

In 2012, the Forces Commander (FORCOMD) released Directive 54/12 that directed an internal reorganisation of the Artillery Regiments away from a single 'super' Gun Battery and back to a more traditional arrangement of each Battery consisting of a JFECC, 3 x JFT's and a Troop of 4 x guns by the end of 2013. As an interim step to complying with this directive, the 4th Regiment restructured upon receipt of the M777A2's in mid-2012 to the following:

- a. 107th Battery (3 Guns);
- b. 108th Battery (2 Guns);
- c. 109th Battery (3 Guns);
- d. Operations Support Battery; and
- e. Combat Service Support Battery.



4th Regiment, RAA – 2012



4th Regiment, RAA – 2013

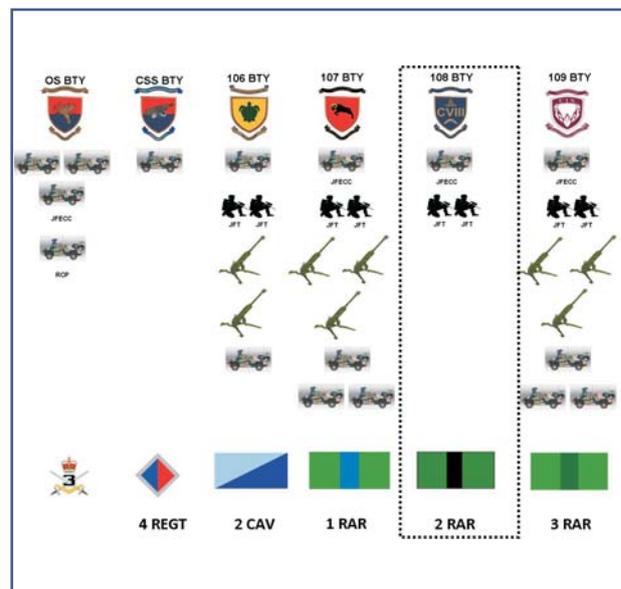
The Amphibious Capability, Plan Beersheba and the 2013 Reorganisation

In 2013, the 2nd Battalion, Royal Australian Regiment (2 RAR) commenced its road to becoming Army's major contribution to the new amphibious capability. This included the addition of an offensive support capability, consisting of a JFECC and two JFT's. This capability would become part of 2 RAR from January 2015. Concurrently, plans were solidified for the movement of 2nd Cavalry Regiment (2 CAV) from Darwin to Townsville in 2015 to form the 3rd Brigade's Armoured Cavalry Regiment as envisioned under Plan Beersheba. The amphibious capability is not permanently assigned M777A2, therefore in early 2013 the Regiment internally restructured once again, removing the gunline from 108th Battery and forming the capability that 2 RAR would inherit in 2015, and fully complying with FORCOMD Directive 51/12. In 2013, the 4th Regiment comprised the following:

- a. 107th Battery (4 Guns);
- b. 108th Battery (Observation Post);
- c. 109th Battery (4 Guns);
- d. Operations Support Battery; and
- e. Combat Service Support Battery.

The 2015 Reorganisation

In January 2015, the 4th Regiment has restructured once again. 108th Battery has become a sub-unit within 2 RAR, although it continues to be resident within 4th Regiment. The arrival of 2 CAV predicated the re-raising of 106th Battery on St Barbara's Day 2014 as its supporting Artillery

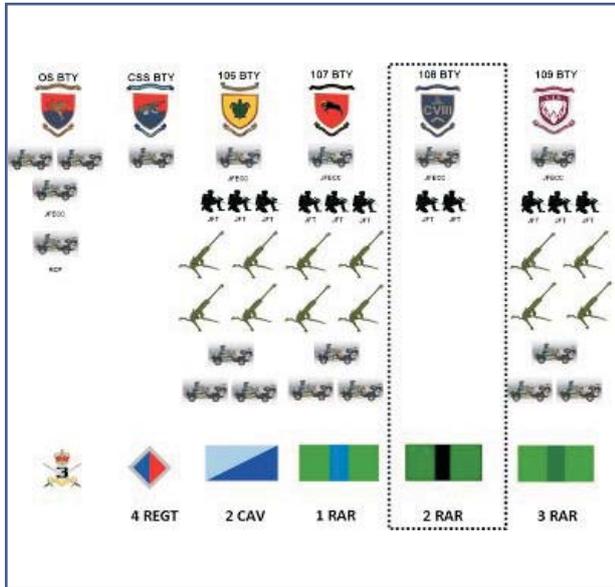


4th Regiment, RAA – 2015 (including 108 Bty, 2 RAR)

sub-unit. In July 2015, the Regiment will prepare for the introduction of the third Battery of M777A2 by internally transferring two guns to 106th Battery to enable them to incrementally develop their capability. From 2016, the 4th Regiment will commence receiving the additional 43 soldiers required to man the third Gun Battery, shortly thereafter followed by the guns and CES. At the end of 2015, the 4th Regiment will comprise the following:

- a. 106th Battery (2 Guns)
- b. 107th Battery (3 Guns)

- c. 109th Battery (3 Guns)
- d. Operations Support Battery
- e. Combat Service Support Battery; and
- f. 108th Battery (Observation Post) – 2 RAR sub-unit, augmented by 4th Regiment and co-located within Chau Pha Lines



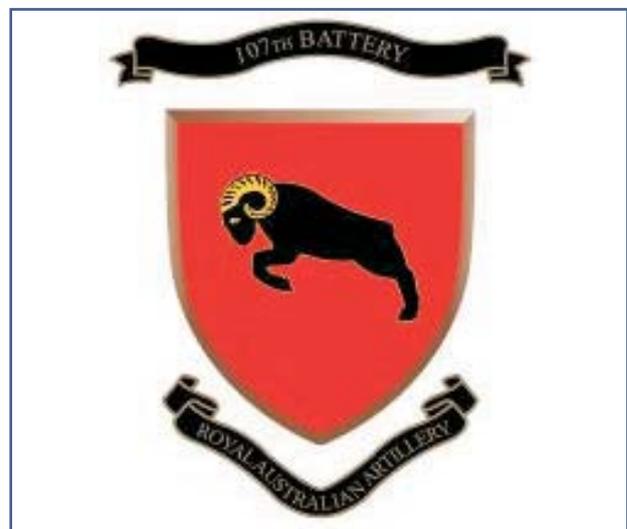
4th Regiment, RAA – 2016/17 (including 108 Bty, 2 RAR)

The Sub-Unit Emblems

The constant re-organisation of the 4th Regiment over the last decade has resulted in the requirement to review the approved unit and sub-unit emblems to reflect the current naming conventions, or indeed to develop new sub-unit emblems in the case of 109th Battery. The Regiment is conscious of both the custom and the traditions of each sub-unit, and will shortly submit the revised recommendations for approval to Army Headquarters. Although there are some minor modifications still underway with the graphic designers, the emblems will be thus:



106th Battery



107th Battery



108th Battery



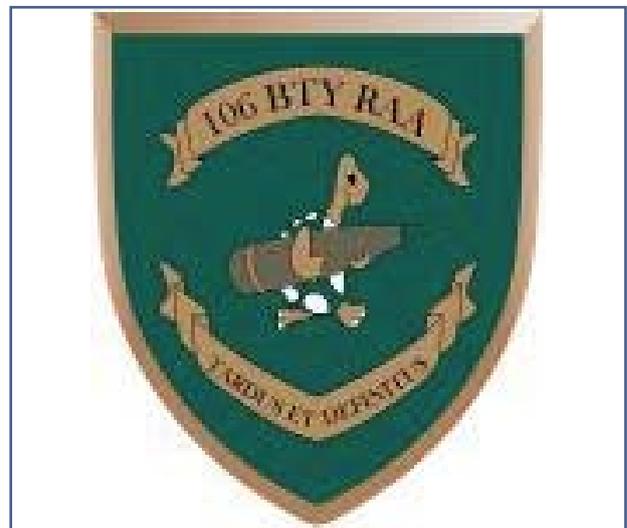
109th Battery

The Unofficial Emblems

Although there will be many who will dispute whether one emblem should be approved or not, with the exception of 109th Bty, Operations Support Battery and Combat Service Support Battery, the Regiment will continue to recognise and support the traditional 'approved' emblems, seeking only the modifications to nomenclature. Having said that, the 'unofficial' emblems will continue to take pride of place within sub-units, on the back of PT shirts and other paraphernalia as a means to continue to foster esprit de corps and recognise the proud history of those sub-units. These include:



Operations Support Battery



106th Battery



Combat Service Support Battery



107th Battery



108th Battery



Operations Support Battery



Combat Service Support Battery

The Voice of the Many are too Few

One enterprising former soldier of the Regiment has developed a 'Facebook' page titled, the 4th Field Regiment Old Boys. This site has enabled the countless hundreds, if not thousands of former unit members to reconnect, or indeed stay connected. I have noted when populating updates on the current Regiment, there is often disappointment and anger when discussing unit and sub unit names, or official versus unofficial emblems. Despite what many believe, these decisions are not made by a faceless bureaucrat in Canberra who holds a grudge against the RAA. Every unit, member of the RAA, and the RAA associations across Australia were provided with information and sought for feedback on the modernisation efforts in regard to the RAA over a period of years. It is disappointing to see so few Gunners who are members of their state or national RAA Association when there are so many who are members of the 4th Field Regiment Old Boys 'Facebook' page, not to mention the countless thousands from other units with similar connections through social media.

The RAA Associations are the ex-serving gunner's voice to raise issues to those currently serving. You have to be 'in it, to win it'. For those who have something to say, I will listen regardless, but I will pay attention if you speak as a paid up and passionate member of the RAA Association. Their numbers are dwindling, and soon they will be too small to continue, and when these disappear so too will the great value our ex-serving gunner community have to influence the RAA as a single voice, not random one-liners on social media. I implore all ex-gunners to engage their association, in many cases to bring them into the 21st century.

School of Artillery

Various Authors

Joint Fires Wing

2015 has seen a busy start for Joint Fires Wing (JFW), with courses commencing very soon after instructors returned from Christmas leave. This year will see a lot of change to courses, with the JFT suite becoming fully digitised, significant changes to the Supervisor series, and a review being conducted of Manager Operations to align with new equipment and capabilities.

The teams will be continue working with Defence Material Organisation across many projects including the ongoing Land 17 rollout, the introduction and testing of new digital mortar capabilities under Land 136, and many other projects dealing with digitisation across Army and the wider ADF.



JFW has continued to build excellent linkages with the wider ADF joint fires domain. Instructor support has already been provided to the Royal Australian Navy Principal Warfare Officers course at HMAS Watson, close linkages with 4 Squadron, Royal Australian Air Force are being maintained, and Joint Terminal Attack Controller (JTAC) Troop providing JTAC-E expertise for JFO training.

Members of the Wing are supporting the technical preparation of the USMC planned HIMARS (High Mobility Artillery Rocket System) engagements, two have just returned from Fort Sill assessing the USMC JFO program. Later in the year two members of the Wing will be attending Precision Point Mensuration (PPM) courses in the UK.

The continued roll-out of TMO has been successful, with close engagement with AGO for ongoing

improvements within the accreditation framework. Preparations have also commenced for the School of Artillery (SOArty) JFO accreditation in the latter half of the year.

Surveillance & Target Acquisition Wing

*Compiled by SGT Daniel Roger
& SGT Todd Makins*

2015 brings another busy training year for Surveillance and Target Acquisition (STA) Wing and the School of Artillery. STA Wing is continuing to develop, train, lead and mentor members of 20th Surveillance and Target Acquisition Regiment (20 STA Regt), and other ADF personnel in the Unmanned Aerial Systems (UAS) capability and (Intelligence, Surveillance and Reconnaissance (ISR) integration of the RQ-7B Shadow 200 TUAS.

STA Wing is continuing to develop a first class UAS training syllabus and simulation suite, for the development of internal and external training requirements throughout SOArty and the wider Army. This will allow for the progression of instructors within the STA Wing and progression of soldiers through the flying continuum of various courses such as Operator Unmanned Systems, Mission Commander, and Regimental Officer Basic Courses.

STA Wing is also preparing for the RQ-7B Shadow 200 upgrades in the near future; continually developing and understanding the greater joint fires integration of currently employed systems and the interoperability of the current and future UAS technologies.

As always we thank the patience and support of 20 STA Regt for the ab-initio flying training. The AAI flying instruction team have been joined by an enduring Operations Warrant Officer / Liaison Officer position based in Brisbane to ensure better planning and coordination for the SOArty and its intrusions in 20 STA Regt personnel and equipment.

STA Wing Surveillance Cell has three new 'postings in' to the cell, with ground based air defence and offensive support backgrounds, have given the cell a very experienced and knowledgeable team. Having such a diverse team this year will allow the cell to maximise training for example involving the Ground Surveillance Radar (GSR) in tracking and adjusting live fire for 53 Battery. School of Armour (SOA) also have allowed previous courses to track

and report tactical movement of their armoured vehicles. We will continue this year to give students confidence in the performance of the radar.

The future of the Surveillance cell and in particular the GSR looks to be one of complete upgrade. Last year Sergeant Todd Makins was involved in the 'train the trainer' course for the upgrade system to the Australian Man-portable Surveillance and Target Acquisition Radar (AMSTAR). The newer lighter system was one that looked and performed much like the British MSTAR 8 system. The system uses differential GPS and a very modern, Microsoft Windows based computer suite operating from an off-the-shelf tough book. This system due to its weight alone will allow for more tactical dismounted training. The cell is looking forward to hopefully getting this system to use and develop training for the members of the RAA.

Air Land Wing

The Air Land Wing (ALW) formerly known as the Ground Based Air Defence (GBAD) Wing is in the process of adapting training to suit the new role of the 16th Air Land Regiment (16 ALR) in the areas of Sense, Warn and Locate (SnWL) and in Air Land Integration (ALI). The increase in skill sets now required of an ECN 237 Missile Number has increased dramatically with the employment of the Giraffe - Agile Multi Beam (G-AMB) Radar and the Lightweight Counter Mortar Radar (LCMR) and numerous C4I systems. In addition the formation of the Brigade Air Land Integration Cell (BALIC) within the Reinforced Brigade Headquarters (both Forward and Main) adds another level of complexity to the training requirements.

The ALW has recently run its first LCMR ANTPQ-49 course removing the training burden from previously delivered Unit training and aims to assume responsibility for G-AMB training by 2016. There is a permanently established Brigade JFECC in the ALW which is used to give soldiers exposure to the operation and battle drills conducted between the key Brigade Headquarter cells and staff. This also provides an excellent means to train our junior officers on the Regimental Officer Basic Course and Regimental Officer Gunnery Course in a realistic staff headquarters environment with injects via both simulation and CNR over an extended period of time. This allows for execution of initial planning, continual refinement, reaction to events and application of Air Defence or Artillery

Intelligence theory through the conduct of Battle Drills.

The remainder of 2015 with pending project and trade model decisions will provide valuable guidance for the future of ALW training. Our focus is on being excellent at our trade skills, supporting modernisation activities and transitioning training in line with the IIS of key equipment.

53 Battery

As the last rounds were fired from the L119 in November 2014, 53 Battery commences 2015 with the freedom to focus on AFATDS, M777A2 and DTCS to support all School of Artillery activities. These challenges include full integration of Land 17 acquired systems including those being introduced with the Capability Assurance Program and supporting other modernisation programs such as the design of new stores and ammunition modules for Land 121 and testing with new gun Tow vehicles. 53 Battery are fortunate to have inherited people from across the gun regiments all of who have valuable M777A2 and AFATDS experience that will undoubtedly contribute to meeting these challenges.

53 Battery is looking forward to its expanded role as the test Battery to validate incoming changes to equipment and set the conditions for the gun regiments to more quickly bring the capability to milestones. This includes a live fire test of the fire planning software upgrade in the Digital Terminal Control System planned for June this year. The Battery looks forward to this planned live fire and all other opportunities to proof and test equipment or procedures for Army Headquarters, Defence Material Organisation and others.

Although our tempo remains high, the Battery manages to get a high turnover of soldiers and junior non commissioned officers away on promotion and skills courses throughout the year. The large ammunition allocation and access to new equipment makes 53 Battery different and the place to be for those who like gunnery and modernising the RAA.

53 Battery looks forward to these new challenges in 2015 and is excited about its expanded testing role which will contribute towards maturing the field gun and digital joint fires capability.

Radio, Digital & Support Wing

*Sergeant Anthony Bray
RDS Instructor*

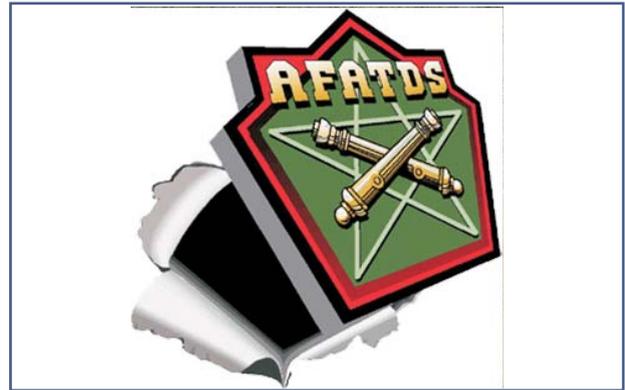
In January 2014 Radio, Digital & Support (RDS) Wing was raised from individual cells within the School of Artillery. The new wing has combined the New Equipment Training Team (NETT) which consisted of the Gun Training Team, Digital Terminal Control System (DTCS) Training Team, Advance Field Artillery Tactical Data System (AFATDS) Training Team, and Communications Support Wing. These are joined by Samuel Tristan Troop (STT) and the Physical Training Instructor (PTI) Cell to form a single Wing commanded by Major Karl Britton and Master Gunner Warrant Officer Class One Miles Humphrey.

Prior to RDSW being established NETT was the driving force for the introduction of the M777A2, AFATDS and DTCS. The M777A2 and AFATDS were fully introduced in 2011, with the M777A2 conversion course being run by the Gun Training Team. The AFATDS and DTCS introduction of capability course were designed for all ranks of the RAA. This then led to the future upgrade of both systems and ultimately the courses aimed at basic IET through to the supervisor levels of training.

The NETT'S contribution have been substantial in the implementation, sustainment, training and introduction of equipment. Former MG AFATDS, Warrant Officer Class One David 'Reg' Grundell was awarded a CSM as part of the 2015 Australia Day Honours for his outstanding contribution to RAA modernisation with regards AFATDS, as well as hosting, planning and organising the 2014 RAA Command Post Exercise, which was deemed to be a great success.

STT manage the trainees from ARTC and are responsible for their administration, training and to ensure each trainee is fit and compliant before starting the ECN specific component of their course. STT also conducts the RAA Common Induction Training Course as a part of their training continuum. This incorporates section HE weapons, pyrotechnics, CBRN training and section weapons. The cell is busy throughout the entire year with back to back courses and a constant intake of trainees.

The Physical Training Cell has seen a lot of changes in the past 12 months. Fitness training within the School of Artillery is primarily focused on Physical Employment Standards - Army (PESA). Trainees who



do not their PESA Employment Categorisation Test do not proceed on posting until that standard is attained. The Commanding Officer / Chief Instructor has provided staff and trainees with equipment that allows all soldiers to prepare both physically and mentally for the physical standards they are required to achieve.

Whilst the injury statistics at the School of Artillery are low, rehabilitation and return to work programs play a major role in ensuring that the soldiers can progress back into the work force easily. The physical training of soldiers from across the Puckapunyal Military Area and external units is extensive. There are 11 courses being conducted that have physical training components, each with the culminating point being PESA.

The Communications Cell is in its third year at the School of Artillery, conducting digital communications courses for IET soldiers. There is great pride within the Cell that they have played a significant part towards the RAA leading the Army's transition to digitisation. The year ahead will be just as busy as the beginning, as we are scheduled to train over 200 soldiers on their Basic Combat Communicators Course, and over 100 on the Specialist Combat Communicators Course. The Cell will also support numerous outside agencies such as DMO with trials of new Battle Management System (BMS), as well as providing communications support to all of the School's activities, including of course the numerous live-fire activities on Puckapunyal Range.

The Cell is preparing for the introduction of the Army's new BMS-C2 system into sustainment training, and helping develop the communications network that supports other exciting new equipment. All of this will be achieved with limited manning this year, including an RAA RSO for the first time at the School.

The RDSW aim is to improve the digital thread and connect other systems effectively and efficiently

with in the Australian Defence Force. RDS Wing plans to conduct several DTCS Train the Trainer Courses within the school, in the new AFATDS Requirements Centre. The updated AFATADS Version 6.8 is likely to be released early next year. The plans is to trial AFATDS and DTCS in the planning stages of the Combat Officers Advance Course to give the trainees a comprehensive experience of Combined Arms planning in the digital age.



Upcoming events include the introduction of the Mobile Weather Station. This system will provide up to date Meteorological data to be passed on AFATDS every four hours. The Cell is looking forward to receiving this system to support the development of training for future courses.



RDS Wing is looking forward to the year ahead not only for the continuation of training of the RAA's latest soldiers but also for supporting the introduction of new equipment for the Regiment.

Phoenix Gunners' Baptism of Fire as Emergency Response Force – Exercise Crater Hill 14

*Major James Groves
Battery Commander 109th Battery
4th Regiment RAA*



In the turbulent and unpredictable northern Australian wet season, cooperation between the Army and the local community is essential to ensuring a timely and effective response to Mother Nature's fury.



Officers and soldiers from 109th Battery transitioned from a back-to-back series of Foundation Warfighting tasks as the online Battery for 3rd Brigade's Ready Battle Group and adopted an emergency

response footing at the conclusion of Exercise Hamel 14. Part of this transition to Response Force (RESFOR) tasks was the conduct of Exercise Crater Hill - a combined exercise with Rangewood Rural Fire Service (RFS) Brigade in late November 2014 which tested call-out procedures, analysed suitability of RESFOR equipment and load carriage, and built rapport with the local emergency services departments.

109th Battery's exercise was initiated with an RESFOR call-out from Regimental Headquarters, which also included a brief SITREP on a fictitious developing natural disaster situation. Whilst the Battery moved to the Rangewood Brigade's fire station, Battery Headquarters (BHQ) dispatched Liaison Officer (LO) teams, based on the existing JFTs, to the RFS Headquarters to integrate the RESFOR capabilities with the Brigade First Officer's

intent for responding to the emergency. The Gunners were assigned the task of developing a 7,000 m fire break along key roadways and rail lines which form a traditional last line of defence against the threat of bush fire for Townsville's outer suburbs.

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Rangewood Brigade First Officer Jim Besgrove said the exercise was mutually beneficial and was an excellent example of cooperation between the services. *'It's wonderful having the support of the Army when these situations arise, the resources they provide make the job that much quicker to organise, carry-out and complete,' he said. 'Operations like this are a great test of our mapping capabilities and our ability to effectively co-ordinate joint tasks.'*

Battery Captain 109th Battery Captain Niel Gould said the week-long exercise provided the RESFOR with useful emergency relief experience and constituted a realistic training environment which not only tested their equipment and readiness, but their flexibility and command structures. *'We've really learnt a lot about fire awareness especially many of the hazards we could potentially face in a real life situation,' he said. 'In terms of communication and working towards the Fire Brigade's intent within the scope of our capabilities, it was a dream. The LO teams on the ground kept BHQ informed of key developments and our communications augmented the Furies', so all command elements had a full grasp of what was happening around the clock for a week straight'.*

Battery Sergeant Major 109th Battery Warrant Officer Class Two Matt Castek said that Exercise Crater Hill 14 was beneficial not only for the opportunity to work with industry experts – the Qld Rural Fire Service – but also because it exercised the modular C2 arrangements in an external environment. *'Working with the Rangewood Furies was excellent', said Warrant Officer Class Two Castek. "The LO Team went out there straight away and by the time the main body had moved to the staging area they were on the radio saying 'here's the task, here's the left and right of arc, let's go'. The boys took off, they loved it". Warrant Officer Class Castek also identified that the training brought out some key areas for*



Rangewood RFS members Stuart Linn, Terry Coleman and Jim Besgrove plan the fire break with Battery Captain 109th Battery, Captain Niel Gould during Exercise Crater Hill 14.



109th Battery, as the RESFOR, used their tried and true Mack GTVs as Section Vehicles, BHQ used PMV-C (Digital) as Command Post vehicles and the LO teams traversed the exercise area in 3rd Brigade's newly-rolled out G-Wagons.



109th Battery ACSO Bombardier Scott Atfield clearing a fire break during Exercise Crater Hill 14.

improvement. 'We deployed with our normal load of pioneer stores, including chainsaws. What we didn't identify when we took over the RESFOR job was that we'd be going through chainsaw blades like there's no tomorrow. When the boys were finished they all said we needed more blades, so it's now a work in progress to get more chainsaws for these tasks in the future.'

ACSO Bombardier Scott Attfield assisted in the coordination of the exercise from the RESFOR Command Post. Bombardier Attfield said that the PMV-Cs were well suited to such a support task and that their mobility allowed them to move in to locations occupied by the fire brigade with the utmost confidence. 'The Rangewood fire brigade briefed us up on what we needed to look out for and we were passing that information on to the RESFOR sections, which were just our normal gun detachments', Bombardier Attfield stated. 'The Firies explained to us which parts of the fire break would be more hazardous and they went through the theory of fire behaviour and how the fire break works. The Sections then knew how wide to cut the fire break so that the fire front could be stopped dead. We did it in the end and the Fire Brigade were happy with the help we gave them, which made it worthwhile' he said.

109th Battery has since forged a close link with Rangewood RFS and was presented a Commissioner's certificate of appreciation from First Officer Jim Besgrove. Battery Commander 109th Battery, Major James Groves stated that although the cyclone season officially closes at the end of April, 109th Battery would maintain their readiness and be mindful of their lessons learnt prior to handing over RESFOR responsibilities to one of the newly arrived squadrons from 2nd Cavalry Regiment.

Editor:

Since this article was received 109th Battery's RESFOR has deployed forward observer parties supported by one from 107th Battery, to support the Tropical Cyclone (TC) Marcia clean up operations. Their role was to act as LO teams to local councils and other community leaders in Rockhampton, Yeppon and Byfield areas to assist the coordination of the priority of effort and support from 3 CER's Engineer Support Group. Since TC Marcia RESFOR members have deployed to Cairns as a reconnaissance element for the Battery's possible RESFOR response to TC Nathan, which ultimately did not require activation.

Exercise Long Look 2014

Captain Marcus Leathbridge
108th Battery, 4th Regiment, RAA

In the last half of 2014 I participated in Exercise Long Look 14. The Long Look program has been running since the 1980s and sees selected candidates conduct a bilateral exchange between host units where they live and work for a period of up to six months. I deployed as part of a seven-man contingent which departed in June of 2014 and returned in December of 2014. Host units included both Army and Royal Marine Commando units. All participants from the contingent are currently part of, or have some involvement in the developing amphibious capability in the Australian Defence Force and therefore gained valuable experience to share with their parent units.

The RAA traditionally sends participants to 29 Commando Regiment (29 CDO) located in Plymouth, England. 29 CDO is the commando trained unit of the British Army's Royal Artillery (RA) which falls under the operational control of 3 Commando (3CDO) Brigade, Royal Marines. They provide both Artillery support and gunnery observation. The Regiment was formed in 1947 and has seen operational deployments in Cyprus, Falkland Islands, Northern Ireland, Iraq and Afghanistan. The Regiment consists of three gun batteries, a headquarters battery and a specialist reconnaissance battery. I was placed within 79 Battery which has proud traditions and bears the battle honour of 'Kirkee,' earned during the Battle of Kirkee, the Third Anglo-Maratha War in 1817. The Regiment is based out of the Royal Citadel in Plymouth, a citadel defence that was established in the 17th century to protect the southern coastline from the Dutch.

When I arrived, 79 Battery was preparing for Exercise Cougar 14 which was to run from August until December and which included sub-exercises Albanian Lion and Jebel Dagger. Exercise Cougar is an annual force projection activity which sees the naval Response Force Task Group (RFTG) sail to neighbouring oceans and countries to posture for bilateral training and potential operations, similar to that of a USMC MEU. The RFTG consists of the Lead Commando Group (LCG) which is a scalable

force of trained commandos, which is able to draw on the assets of the RFTG to poise at sea for extended periods of time and utilise landing craft or helicopters to conduct a range of ship-to-objective tasks. It can deploy in a variety of constructs from a six man team to a force of 1800 commandos and support personnel. This is similar to the ADF's Amphibious Ready Group currently in development by the ADF. The LCG, similar to what the ARG will do, uses the exercise to also conduct their own training on foreign shores to hone their amphibious skills.

The ships that comprised the RFTG were HMS Bullwark (Albion Class Ship), HMS Northumberland (Type 23 Frigate), HMS Ocean (Landing Platform Helicopter), RFA Lyme Bay and RFA Wave Ruler which are attached permanently to the RFTG. HMS Ocean shares the same function as HMAS Canberra and RFA Lyme Bay which is a Bay Class ship the same as HMAS Choules. HMAS Choules, formerly RFA Largs Bay, was purchased by the RAN in 2012. In August I boarded RFA Lyme Bay as part of the 29 CDO contingent attached to 40 CDO RM which was at the time the LCG. The remainder of the RFTG would meet us on the transit to the first destination of Gibraltar at the mouth of the Mediterranean Sea. Within the 29 CDO contingent was an operations detachment aboard HMS Bullwark which fulfilled the role of an Australian Brigade (Bde) Joint Fires Cell (JFC), similar to a Bde JFECC. On board RFA Lyme Bay was the JFC from 79 Bty, similar in role to a BG JFECC and two Fire Support Teams (FSTs) attached to the two Royal Marine CDO companies on board. I was employed as the JFC Commander which is the equivalent of an FSO in a BG JFECC in the RAA. Once the RFTG reached Gibraltar, a three day port visit began to allow personnel to stretch



FSTs conducting training for the upcoming raid on VBS2

their legs and enjoy the sights of the small British overseas territory. Gibraltar is significant for all Royal Marine Commandos as in the early 1700s the Royal Marines secured a key military victory by capturing the small peninsula. The 'Gibraltar' battle honour remains on their cap badge and colours today. On every Exercise Cougar the Royal Marines conduct a port visit to Gibraltar and take part in the infamous 'Rock Run,' a 5 km run from the port to the top of the island some 426 metres high.

Once the RFTG departed Gibraltar the headquarter elements began their planning cycle within the Commando Planning Group (CPG) for two raiding activities to be conducted on the Albanian coast. The UK and Albania have developed further relations since Albania joined NATO in 2009. The planning process used by the Royal Marines is similar to the SMAP employed by the Australian Defence Force. The Marines use 'The Seven Questions' estimate process which, similar to the Australian Defence Force MAP, focuses on analysing the enemies weaknesses and targeting them in a combined arms effort. Joint fires assets available to the LCG for the activities were comprised of the RFTG resources. This included naval gun support, mortars, UAS and Typhoon jets.

The two raids were simultaneous activities conducted against a fictional non-state enemy that had occupied key infrastructure along the Albanian coast. The first objective, Objective Silver, was a small peninsula which housed an abandoned Soviet submarine pen. One of the commando companies was delivered to a nearby beach landing site by a mixture of offshore raiding craft (ORC) and Landing Craft Utility (LCU). LCUs loaded with Vikings, a tracked amphibious armoured vehicle, were used to create a deception plan at a nearby landing site. Precision CAS strikes, conducted at H-hour,



RFA Lyme Bay

destroyed enemy C2 nodes and allowed for the rapid clearance of the peninsula. Simultaneously an AMO delivered the second Commando Company to Objective Gold, where again the enemy was defeated.

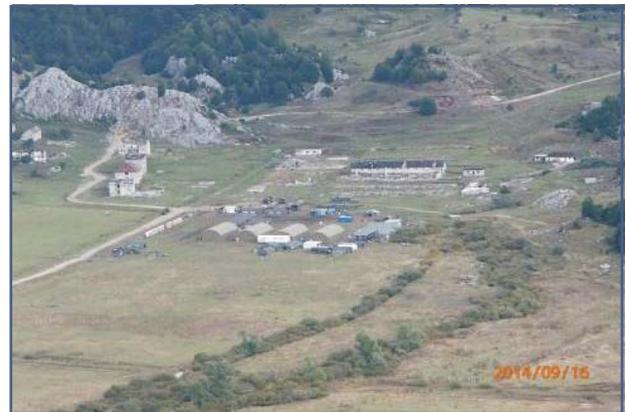
Joint fires played a key role in the defeat of enemy forces as the raid relied on a swift insertion, an aggressive clearance which utilised maximum firepower and a rapid pre-planned withdrawal. Pre-H targets were prosecuted using CAS by the Forward Air Controllers (FAC) located within the recon patrols as part of the pre-landing force. Battlespace co-ordination was key in the handover of control of assets and battle space ownership with the FSTs located with the main landing force. It was the ability of the FSTs and the JFC to provide rapid asset allocation which allowed for firepower to be delivered at a precise time to weaken the enemy's ability to co-ordinate a successful response which ultimately led to the success of the raids.

Joint fires played a key role in the defeat of enemy forces as the raid relied on a swift insertion, an aggressive clearance which utilised maximum firepower and a rapid pre-planned withdrawal.

Once the raids were complete, the remaining forces came ashore and prepared for the next stage of Exercise Albanian Lion which began with a move north to a town called Bize, located in the Albanian mountains. The relatively uninhabited area turned out to be an ideal area for live ranges, dismounted movement and mountain warfare packages to be conducted. I was fortunate to conduct a mountain warfare package instructed by the famous Mountain Leaders of the Royal Marines. To become a mountain leader Royal Marines are selected, usually from a reconnaissance background, and must undertake a gruelling series of training packages including mountain movement, vertical assault, snow survival, resistance to interrogation and CTR training. The Royal Marines form the sole mountain assault and vertical assault capability in the UK military. The package delivered in Bize included tactical mountain movement, mountain navigation, communications in mountainous terrain and survival training.

After Albania the LCG parted with the RFTG and flew to Jordan where the next exercise, Exercise Jebel Dagger, was to take place. Britain and Jordan have shared strong relations and conduct annual

bilateral training exercises. The importance of these relations were continually stressed to the LCG, considering the growing ISIL activity to the country's immediate North.



Camp life at Bize. Affectionately known as 'Passchendaele', when raining.



If it ain't raining, it ain't training. Mountain training in Albania.

Exercise Jebel Dagger consisted of three FOB styled training evolutions for the Royal Marines who were to be tested at both Troop, Combat Team and Commando level in both conventional warfighting and stability operation scenarios. The 79 Bty contingent was soon joined by the 79 Bty gunline which had been playing the role of enemy throughout Exercise Albanian Lion. The Gunners detached themselves from the Royal Marines and occupied a camp at Jebel El Betra where they were given an ops box in which to conduct live fire training. The terrain proved perfect for conducting manoeuvre training for the gunline and various observation post taskings for the FSTs. Unfortunately the impact area was to be shared with an immeasurable number of Bedouin who ran sheep in the local area, and who were reluctant to leave the impact area.

Over the coming weeks the gunline would average three moves a day while the FSTs live fired a range of missions including co-ord illum, SEAD and basic missions. Here I was able to observe the FSTs in action and compare their drills to the RAAs. Essentially they operate similar fire discipline and observation procedures, except use a voice call for fire as standard. I remained the JFC Commander and was responsible for the allocation of resources as well as fulfilling the role of exercise control for the Operations Box. The gunners were soon joined by Royal Marine mortars and the reconnaissance troop which both utilised various parts of the range for desert training. In October the remainder of the LCG joined us at Jebel El Betra where two Company level clearance activities took place with live artillery and mortar support. The live fire was expertly integrated into the scenario and provided an impressive battle inoculation for the newer Marines. After the live fire scenarios we travelled back to Aqaba Port and departed for the UK where Exercise Cougar 14 ended for the lucky few who were to fly back rather than conduct the month long sail back to British shores.



Conducting 9 mm ranges in Jordan.

The equipment used by the Commando Gunners was unique to their purpose. They employed a Viking as their JFC vehicle which proved to be a fantastic vehicle for its purpose. Although dated it supported an impressive communications suite and allowed for an enclosed command post which could be operated in isolation of as part of the headquarters setup.

The gunline troop was equipped with the L118 light gun with the Automatic Pointing System (APS) which replaced the director employed by the RAA until recently. The gun was towed by a Pinsgaur, an all-terrain high mobility vehicle. The L118 is used



The Albanian landscape.

by 29 Commando Gunners and the 7th Parachute Regiment, the Airborne Gunners. The L118 was chosen over the AS-90, which the rest of the RA employs, as it is light and highly manoeuvrable suiting both amphibious and airborne roles. The employment of a light gun as part of the RFTG meant that it had integral artillery support as opposed to having to rely on other ranging units, which would rarely be ashore prior to the LCG anyway. A CH-47 could transport the L118 and ammunition in one lift. It would only take four lifts to land a troop. The RFTG originally had AS-90s in its ORBAT but reverted to the L118 once the lift requirements were trialled and realised. If the ADF ARG was to employ a light gun it too would have integral artillery support. The M777's size increases the logistical burden on lift assets. It would take the two CH-47s from the ARG eight lifts to land a troop with ammunition. This flight time would sacrifice the assets use for other key tactical tasks.

This presents the Australian Defence Force with an opportunity. Both the 161st and 163rd Battery of the Royal Regiment of New Zealand Artillery (RRNZA) still use the L119 light gun, which is suitable for the amphibious role. If the ARG was to include a troop from the RRNZA it would not only gain integral artillery support but it would include New Zealand into the growing amphibious capability. Similarly, Papua New Guinea which is equipped with the 120mm mortar, could add to our FIRES capability in the future whilst building on our already strong ties with country's military.

The RFTG is essentially a model for the Amphibious Ready Group to replicate. It highlights the importance of the need to foster a combined arms attitude at all levels. The scalable force that it provides is reliant on the support that it can draw

from and match it to the task to be faced. The regional engagement that it conducts with its allies and neighbours is key to securing support and retaining good relations with current and future allies. Therefore, all members of the ARG must understand the importance of the organisation and the activities that it conducts. Opportunities for bilateral training must be pro-actively sought after as it affords the nation's military an opportunity to learn from like units. The RFTG understood this and Exercise Cougar is a prime example of this concept in action.

*This presents the Australian
Defence Force with an
opportunity.*

My time with the Commando Gunners gave me a valuable insight into an organisation which has been conducting amphibious operations since 1947. The way that they employ and practice joint fires is similar to the RAA, which is not surprising as it was the RA on which the RAA was based. It was also encouraging to see that although the Australian Defence Force is smaller in size its capability is growing to parallel that of the RA. The high readiness culture adopted by the Commando Gunners as part of the LCG is something for the Australian Defence Force to aspire to, especially for those who are part of the upcoming amphibious force in the Australian Defence Force. I encourage all future participants to learn as much as they can whilst with their host unit and be open to new ideas and concepts.

To the men of 29 Commando Regiment, especially those of 79 Battery, thank you for your hospitality.



Commemoration of the Bombing of Darwin

*Captain Chris D'Aquino
Battery Captain, 103rd Battery
8th/12th Regiment, RAA*



Seventy three years ago on 19th February 1942, mainland Australia came under attack for the first time when Japanese forces mounted two air raids on Darwin. The two attacks, which were planned and led by the commander responsible for the attack on Pearl Harbour ten weeks earlier, involved 54 land-based bombers and approximately 188 attack aircraft which were launched from four Japanese aircraft-carriers in the Timor Sea.

In the first attack, which began at 9.58 am, heavy bombers pattern-bombed the harbour and town; dive bombers escorted by Zero fighters then attacked shipping in the harbour, the military and civil aerodromes, and the hospital at Berrimah. The raids killed at least 243 people and between 300 and 400 were wounded. Twenty military aircraft were destroyed, eight ships at anchor in the harbour, including the destroyer USS Peary with 88 sailors aboard, were sunk, and most civil and military facilities in Darwin were destroyed.

As part of the commemoration 8th/12th Regiment, RAA conducts a re-enactment with M2A2 Howitzers firing 105mm blank cartridges, representing the anti-aircraft guns that were protecting Darwin on that day. This year the 103rd Battery provided three M2A2s and detachments to support the commemoration. The guns fired 21 rounds supported by General Purpose Machine Gun

(GPMG) fire from pits placed around the gun position, all while gunners and officers wore period dress for the occasion. RAAF No 92 Wing AP-3C Orion maritime surveillance aircraft flew low and fast over a crowd of more than 2,500 spectators, to give an impression of what was a force of 188 Japanese aircraft. Smoke from guns and the signal grenades used throughout the re-enactment managed to blow straight into the crowd of spectators, smoking out the marquees but creating a very surreal spectacle while potentially causing numerous respiratory issues within the crowd.

The event was well received by all that attended the event with many veterans and civilians remaining after the commemoration to partake in numerous photograph opportunities with members of the Battery in front of their guns.



Gunners from 103rd Battery fire the M2A2 during the commemoration.

The Battery also provided three members for the tri-service catafalque party. The remaining personnel were supplied by HMAS Coonawarra and 13 Squadron RAAF. The event was well received by all that attended, with many veterans remaining after the commemoration to share personal experiences of the attack with the gunners from 8th/12th Regiment.

The 102nd (Coral) Battery hosted a number of the veterans of the Bombing of Darwin during a visit to the 8th/12th Regiment RAA and the 1st Brigade as part of the commemorative activities.

The veterans were shown around Robertson Barracks and participated in demonstration of the Regiments current capabilities including the M777A2, Vector 21 and Thermal Surveillance System. The event provided the veterans and their families a chance to see the changes that have occurred throughout the Regiment in the past 73 years.



Gunner's Nicoli and Smyth speak with an Association member during their visit to the Regiment.



Lieutenant Isabelle Cowley speaks with veterans from the Bombing of Darwin at the commemoration in Darwin.

October 2014 Release

ANZAC SONS

THE STORY OF FIVE BROTHERS IN THE WAR TO END ALL WARS.

...Well dear Jim it breaks my heart to write this letter. Our dear [brother] was killed yesterday morning at 5.30. The bullet killed him instantly and he never spoke a word. I had just left him and gone down the trench to see the other lads when I was called back. Oh Jim it is awful...Oh I do hope he is the last...

It is April 27, 1918, Jim's brother writes from the battlefields of France. Of five brothers serving on the Western Front, three have given their lives; another has been hospitalised. Six agonising months of brutal warfare were yet to be endured...

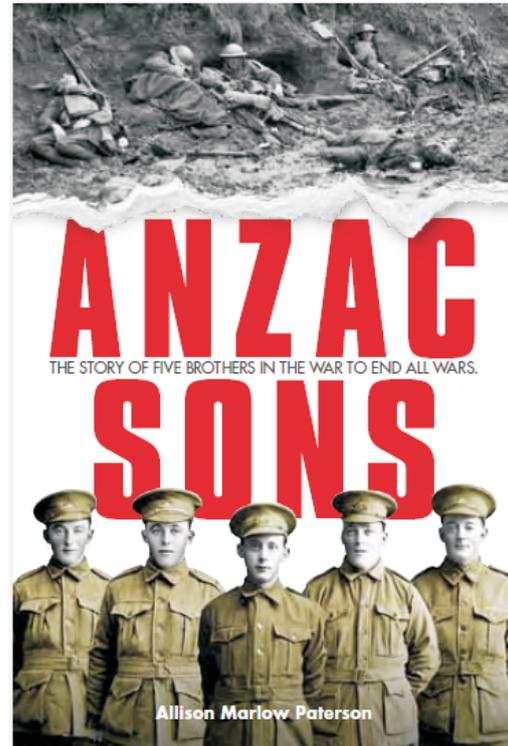
The Great War was a senseless tragedy. Its long shadow darkened the four corners of the world. In Mologa, Victoria, once a bustling community, stands a lonely stone memorial. Etched within the granite are the names of the Marlow brothers and their mates; a testament to ordinary people who became heroes.

Anzac Sons is composed from a collection of over five hundred letters and postcards written by the brothers who served. From the training grounds of Victoria, Egypt and England, to the Western Front battlefields - Pozieres, Bullecourt, Messines, Menin Road, Passchendaele, Villers-Bretonneux and the village battles of 1918 - this compelling true story was compiled by the granddaughter of a surviving brother. She takes us on her journey as she walks in the footsteps of her ancestors.

This is a story of mateship, bravery and sacrifice; it is a heartbreaking account of a family torn apart by war. It is a pledge to never forget.

ABOUT THE AUTHOR

Allison Marlow Paterson is a teacher/librarian. She decided to write this book to honour her family after the collection of over 500 letters came close to being destroyed, but through fate were recovered. She began researching and transcribing the letters 12 years ago and after visiting the Western Front in 2011 was finally able to complete this moving and historically important book.



Key Selling Points

- This work is unique – the story of FIVE brothers all serving in WWI, three of these young men were killed serving their country.
- Based on extensive research and contains never-before published letters, photos and postcards from the five brothers.
- It tells of the generational impact of war on the family, tragically upon their mother who “died of a broken heart” and the family’s stoic recovery in the post-WWI years.
- A story of national significance; particularly with the 2015 centenary of WWI.
- Will hold appeal to researchers, military enthusiasts and a broad general readership.

Specs

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Rest

Mess & Regimental Property

*Brigadier Doug Perry, RFD, OAM (Retd)
Immediate Past Colonel Commandant Southern Region*

From the commencement of conflict between humankind it became habit to collect trophies and other evidence of success in battle, to demonstrate to your neighbours and colleagues that you had been to war.

As tactics altered and periods of training and siege were imposed upon the military body acquisitions extended to items of decoration and comfort to leaven the spar city and boredom of these interruptions to the battle. During periods of peace and stability old soldiers and their relatives felt a desire to transfer items of perceived value and military relevance to a suitable Regimental home for posterity.

Bureaucracy is also an evolution which pursues the military function and in due course Military Bureaucracy intervened to produce a series of orders, instructions, directives and amendments thereto that attempt to control Mess and Regimental Property. Despite the best efforts of those members pressed into the process of complying with the administrative processes, in force from time to time, more Commanding Officers have been admonished for failure to manage mess property and other assets than for failure in the field of operations and training.

To assist with the preservation of otherwise promising military careers I offer the following advices in relation to Mess and Regimental Property.

- Over time Property will cover a wide range of items which should be categorised into:
 - * items of historic significance;
 - * items of intrinsic value;
 - * household' items of a lasting nature;
 - * household' items of a transitory nature; and
 - * loan items.

Categorisation must be made at the point of acquisition and reviewed, from time to time, as further information or circumstances alter. Re-categorisation should be made with care and careful consideration of the factors. Bear in mind some items may have more than one attribute.

- The basic functions of administering Mess and Regimental Property:
 - * acquisition;
 - * recognition;
 - * categorisation;
 - * valuation;
 - * depreciation;
 - * recording;
 - * maintenance and stocktake;
 - * review;
 - * audit;
 - * insurance;
 - * redistribution; and
 - * disposal.

Acquisition

Acquisition will either be by purchase or donation. In the case of purchase there must be an authority to make the purchase and the value will be the purchase price. In the case of donation, presentation or loan, due recognition must be made and a valuation ascribed in due course.

Recognition

All acquisitions other than by purchase must be promptly and appropriately acknowledged, categorised and recorded. Loan items should be of particular concern and great care must be taken in

relation to determining the terms of the loan and the circumstances which will result in a return. Otherwise loan items should receive the same care and attention as other items of property. I highly recommend that a written agreement or letter of understanding be arranged between the 'Holder' and the 'Lender'.

It is particularly important that otherwise innocuous items, which may have significant provenance, should have this latter quality carefully recorded in the property folio to enable careful consideration to be given in the event of disposal.

It will be of assistance, in the future, if a short description of the circumstances leading to a donated acquisition, including the historical or heritage reasons for the donation is digitally recorded in the Property Register and if possible copied onto the item of property.

Categorisation

As described above all acquisitions should be categorised. In some cases an item will have two elements. That is to say many items of historic significance will also have intrinsic value. However this is not always the case.

Valuation

Ascribing a value may be difficult and in the absence of empirical evidence of value, it may be prudent to obtain an independent valuation. This can be a delicate issue and care should be taken. In the interest of courtesy and respect it will be desirable to err on the higher side at least in the short term.

In the past many items were simply given a nominal value to enter them into the system. This has, in some cases, seen valuable items with a nonsense valuation of \$1 which in turn has resulted in the item being '*liberated to a better home*' by an otherwise well-meaning member of the Mess. During a count at the School of Artillery in 2007 a plaque of 11 foreign bayonets was found missing with a book value of \$20 and had been summarily written off. Shortly after that decision an experienced valuer saw the digital image of the item and suggested a value of \$11,000 was more appropriate.

Recent professional advice to the School of Artillery has been to maintain realistic values on all property and when in doubt, again err on the high side. Bear in mind that the recorded valuation will have an impact on whether or not a formal investigation is required.

In many Messes furniture can be of significant quality and value and again care should be exercised in categorising the better items. That is a differentiation between items of lasting value and items of transitory value.

Depreciation

The concept of automatic depreciation of Property should be avoided as the bulk of items, especially those linked to history and heritage, usually increase in value and the depreciation process is only relevant in the case of items such as televisions, sound systems and coffee machines. These latter items may be conveniently described as '*Household*' items

Recording

A record of all Mess Property must be established and maintained. In the current environment a computer based system including digital images is desirable, if not essential. The imagery will assist with the identification of items by subsequent Property Officers and by independent Valuers and Auditors.

Maintenance and Stocktake

Despite the drudgery of polishing silver, it should go without saying that all Mess Property should be maintained to the highest order of both appearance and functionality.

Furthermore, the Property Register must be maintained and regular property counts undertaken. It is suggested that a rolling program of stocktaking, used by many messes, perhaps attached to the responsibilities of weekend duty personnel be adopted to reduce the drudgery of accounting. Discrepancies should be promptly reported and the appropriate action taken before a write off or revaluation is made.

Review

At the point of receipt it is recommended that a sensible valuation be placed on all items as they come to hand. In most cases, and the School of Artillery is a case in point, where the value of Property is, by far, the major item in the Balance Sheet and many items are received other than by monetary purchase. Some items will depreciate, however many items will appreciate and it is this latter trend which often leads to serious anomalies.

A process of valuation is usually considered to be essential and further desirable for insurance purposes and most Property Holders are diverted

by the cost of a formal valuation. In my view, these fears are unfounded and with the careful application of the process of Military Appreciation, a low cost method of achieving a workable result, which is all that is required for a workable plan, can be achieved.

At the last visit to the School of Artillery, Mr Armstrong suggested that a grouping of like items could provide a sensible and workable outcome and to demonstrate the process he used swords as an example. He suggested that all RA swords be given a base value of say \$300 to which would be added a sum to allow for the item to be of a wearable standard for a formal parade and the value then further enhanced by provenance. (Authors Note: Mr Ian Armstrong OAM is an experienced valuer and has a strong family connection with RAA and has provided valuation services and advice, pro-bono, to School of Artillery on a number of occasions.)

It will also be desirable to have an independent review of the values of property and the efficacy of the recording system periodically.

Further it will be desirable to review the valuation of the Property. Major problems stem from inadequate or inappropriate valuation of Property, particularly items of significant value. Most of which are discussed in this paper. Revaluation of many items can be achieved on a 'self-evaluation' process, also discussed in this paper. However the nominated value of items of major significance and intrinsic important should be reviewed formally on an 'independent' basis from time to time.

Audit

Usually the Property of a Mess or other constituted body will form part of their Financial Accounts which are, in turn, audited in accordance with current instructions. In some cases Property is held by an independent Trust body which may or may not be the subject of either audit or indeed military control. In such circumstances I consider that common sense should prevail and some form of third party scrutiny be self-imposed by the Trustees. The auditor's report should specifically refer to the management of Property.

Insurance

The concept for the insurance of Property is a complex and vexing question. Most Holders do not have the funds to pay insurance premiums and furthermore, the additional cost of a valuation of the property prior to insuring is also an added cost. To assist with this financial challenge some

operators of Non Public Money account such as Messes now have access to limited cost free coverage through the Australian Defence Force.

In a business environment, many assets are either uninsured or partly insured depending upon their contribution to a profit outcome and this decision is usually based upon the capitalisation of the Holder. Otherwise assets with intrinsic value or amenity may or may not be insured for similar financial reasons.

From the Military perspective the decision should be based upon the following key factors:

- possibility of Government insurance,
- security of the assets,
- ability or need for replacement, and
- financial impost of valuation and insurance premiums.

I suggest that there is often a case for self-insurance and possibly the 'Holder' should ask the simple question: 'What would we do with insurance claim funds if there was a total or major loss of Property?' in order to arrive at a decision.

Redistribution of Property

From time to time a careful examination of property may reveal items which may be better placed in a new home. This may come from unit amalgamation and re-location. I have seen significant infantry battle souvenirs in an Artillery collection and on the other hand I have released items from a discontinued Army Reserve unit to its Australian Regular Army namesake, including some heritage Infantry silver, which collectively show the historic evolution of the 'donor' and subsequently the 'donee'.

Disposal

Disposal of Mess Property may occur in two ways. First in the normal course of events where items which may be reasonably categorised as 'household' items become surplus to Mess requirements. In which case the disposal process should be transparent and otherwise authorised by the committee. Second, in the event that a Mess is to be closed or disbanded much greater care and consideration must be given. This may be more relevant to Army Reserve units and there is much evidence from the major reduction of the UK military structure to refer to.

From anecdotal and personal experience I suggest the following as an outline plan:

- Return all loan items to the lenders or their immediate family.
- Offer items of Military significance to the AWM or a related Arm or Service organisation.
- Offer items of Regional Significance to a local historical society or Municipal body.
- Return donated items to donors or family.
- Consider carefully the concept of returning items to their country of origin. Those who were our enemies in the past are now close friends and allies.
- A ballot of remaining items to serving and past mess members at an ascribed value.
- Sell remainder by auction.
- Distribute cash to local Legacy or like organisation.

Conclusion

Our Property is, in the main, the tangible component of our history and heritage and every care should be taken to ensure that it is treated in a sensitive and business – like manner. In my experience, at many levels, Property is not given the attention, care and consideration that its position demands, particularly in the areas of Categorisation and Value. There are many instances of poor management, caused largely by lack of understanding rather than indifference. Training and guidance would improve this situation.

Recommendations

1. Review Standing Orders to include the elements of this paper deemed appropriate to the 'Holder' of Property.
2. Ensure that the Audit Report, otherwise called for in relation to the financial aspects of the 'Holder', includes a discrete section to confirm the proper handling of Mess / Regimental Property.
3. Where Property is a significant component of the 'Holders' assets, it will be desirable to establish a sub-committee to review the husbandry of the Property on an annual basis.

Fired up with ANA

OFFICER WRITES THE RULE BOOK FOR THE FIRST FULLY FUNCTIONAL AFGHAN TACTICAL AIR COORDINATION TEAM, LEUT PETER CROCE REPORTS.

CAPT Cooper Dale is playing a leading role in re-writing the book on artillery operations and air space safety with the Afghan National Army (ANA).

Capt Dale is the key Australian Joint Fires Adviser at the Australian led 205th Corps Coalition Advisory Team at Kandahar, Afghanistan, for Operation Slipper.

The artillery officer advises an ANA colonel who has pioneered the first fully functional and operational Afghan Tactical Air Coordination (ATAC) unit in Afghanistan.

He said the ATACs coordinated close combat attack support to the ANA and deconflicted airspace to ensure the safety of commercial and military aircraft across Afghanistan.

"I am the Fires Adviser to the Head of the 205th Hero Corps Artillery Chief," he said.

"I advise him on the training, employment and development of about 500 ANA gunners and the artillery capability as a whole.

"In Australia I am a Joint Fires Observer and coordinate artillery, naval gun fire and close air support to support ground manoeuvre."

He said he was lucky as all artillery soldiers around the world had an unbridled respect and enthusiasm for gunnery.

"The relationship between me and my counterpart is excellent because of this shared interest in artillery," he said.

"We are having a good impact on their capability through the provision of training, and artillery has been successfully used by the ANA against the insurgency without any ISAF assistance - this is a good result."

He said there were still people in Afghanistan working hard to secure

the future of the country.

"We provide daily support to the ANA 205 Hero Corps that is fighting and winning in southern Afghanistan and holding the strategically important city of Kandahar," he said.

"Afghanistan it is still a dangerous environment where you have to be on your guard at all times."

Army News October 9, 2014

Capability

'Reducing the Soldier's Burden'

DSTO has a novel approach to reducing the effect of heavy loads carried by Australian soldiers.

*Australian Government, DSTO
Connections, December 2014 (Issue 198)*

The load carried by our troops can significantly impair performance. Anecdotal reports from operations¹ in Afghanistan suggested that 50 kg is a common load carried by dismounted personnel whilst patrolling. Excessive external load may adversely impact upon an individual's physical capability (eg, mobility, lethality) and health (eg, survivability, thermal burden). Despite significant research around the world, there's been no single effective solution until now.

The end-goal was to allow the soldier to travel further, faster, and be less fatigued (combat ready) at the end of their patrol.

DSTO has invested considerable effort across a number of work areas in an attempt to understand and reduce the burden on the soldier. For example, in 2011 Chris Brady (LD), Derrek Lush (Army) and Tom Chapman (LD) reviewed the problem and released a comprehensive technical note² that included descriptions of near-future solutions. They reported that assistive technologies may provide solutions to aid the soldier in carrying part of their load. The end-goal was to allow the soldier to travel further, faster, and be less fatigued (combat ready) at the end of their patrol.

(Flexo)skeleton Out of the Research Cupboard

Since then, Tom, with human factors support from Chris, has been working on a wearable non-rigid exoskeleton dubbed "Flexoskeleton" that helps shoulder the burden of a heavy backpack. "Many countries are researching augmentation of human strength using electro-mechanical exoskeletons," says Chris, who has trained in psychology and

cognitive science. "They aim to match and mimic the user's anthropometry and their multi-dimensional movements. But most are complex, require power and increase the user's energy cost – inhibiting acceptance by the military."

"Flexoskeleton is an innovative approach to exoskeleton design," says Tom. "Our proof-of-concept demonstrator has had encouraging test results."

Flexoskeleton doesn't seek to augment the soldier's power, but focuses on reducing the problems of injury and fatigue by transferring the load to the ground. "The concept is simple and reasonably pragmatic," says Tom. "It is a passive, unpowered exoskeleton. It's light - weighing 3 to 4 kg, with plans to reduce to 2 kg, easy to remove and pack away, low cost and designed to integrate with the user and standard kit."

Flexoskeleton doesn't seek to augment the soldier's power, but focuses on reducing the problems of injury and fatigue by transferring the load to the ground.

With an industrial design background, Tom has conducted human factors research for the last 12 years. Tom's experience with innovative concepts includes the Off-Axis Viewing Device (OAVD), now made and marketed by Aimpoint as the Concealed Engagement Unit (CEU), for aiming infantry weapons from a position of cover.

Problems with Bio-Mimicry

Tom explains that typical exoskeletons are based on the idea of biomimicry, but adding an external



Tom Chapman (LD) and an image of the upper back section of the Flexoskeleton

skeleton to a system that already has an internal skeleton produces complex biomechanics issues. The typical exo uses rigid hinged links, much like a human skeleton and are combined with a complex system of actuators, clutches, sensors and microprocessors to enable the exoskeleton to closely mimic the user's movement. However, two skeletal systems attempting to operate in parallel produces many calibration challenges and typically results in uncontrollable forces that actually increase the user's effort of carrying the load.³

"A powered exoskeleton also requires a large, heavy power source, is very expensive and potentially redundant during certain phases of a mission (for example, when the load reduces as supplies are consumed). At that point, ironically, what was designed to ease the soldier's burden can actually become a burden in itself."

Flexoskeleton approaches the idea of exoskeleton biomimicry design in a novel way. Instead of using hinged links, like the human skeleton, cables are used to transfer the load to the ground. This mitigates the problems of two skeletons in parallel 'fighting' against each other during movement. It

also uses a shared-load approach to ensure the soldier is still involved in the load carrying process and aware of the changes in his centre-of-mass as he moves. That is important for balance and injury prevention. On average Flexoskeleton transfers around two-thirds of the load to the ground, leaving one-third to be supported by the shoulders.

Cable Transfers

The concept works using the principle of push/pull Bowden cables, acting like a flexible rod (in common use in mechanical systems such as steering mechanism for smaller boats). The inner cable is able to support a compression load as it is constrained by the cable sheath and can transfer that load efficiently to a remote location. This also provides some freedom to locate the cable path and provide integration to the soldier and the soldier's ensemble. This is particularly important when you consider that the modern soldier wears a variety of clothing and load carriage equipment, including body armour and pouches for ammunition.

The lower leg assembly can be worn under the uniform to mitigate snagging or impediment to



Photographs of the Flexoskeleton showing part of the cable system.

manoeuvring through difficult terrain. Unlike a typical exo, this system can be removed and packed away when not required, for example when the load burden is reduced and the device is no longer required.

Apart from its simplicity, Flexoskeleton is also passive and ultimately inexpensive. "A rigorous iterative design and testing approach, involving industry and the soldier, is now moving ahead. This will ensure the best efficiency, integration and soldier acceptance, should the concept progress to an in-service item."

*Apart from its simplicity,
Flexoskeleton is also passive and
ultimately inexpensive.*

Warrant Officer Brian Milligan (LD Military Staff), an infantry soldier with 30 years of military experience, says although the Flexoskeleton system is still in its development phase it has proven to be sound concept that has the potential to provide valuable support to a new generation of soldiers who will be required to carry an increasingly heavy combat load during training in or on operations.

Commercial Opportunities

Chris pitched Flexoskeleton to potential industry collaborators at the Future Land Force Conference and says there has been interest in developing the product. "It's an exciting opportunity for industry to further develop this innovative, Australian

invention into a fully functional and tested prototype for transition into service."

Patents have been filed and the potential market includes coalition infantry, firefighting services and the civilian trekking and leisure industry.

Endnotes

1. DSTO-TR-2765 - "Load Carriage Capacity of the Dismounted Combatant - A Commander's Guide" - Jace Drain, Renee Atwells, Robin Orr and Dan Billing
2. DSTO-TN-1051 - "A review of the soldier's equipment burden"
3. See Natick study
<http://nsrdec.natick.army.mil/library/00-09/r06-35.pdf>.



Last blast for Hamels

105MM L119 LIGHT GUNS ARE RETIRED FROM 53 BTY AT THE SCHOOL OF ARTILLERY, THE LAST BATTERY TO USE THEM

Sgt Dave Morley



Top, 53 Bty's Hamel guns are fired for the final time before they are replaced by 155mm M777A2s

GUNNERS from the School of Artillery's support battery, 53 Bty, made history when they fired the last Hamel guns for the final time late last year.

Troop Commander Lt Adrian Parry said the guns were withdrawn at the end of 2014, with 53 Bty being the Army's last remaining unit to hold the 105mm L119 light gun.

"The guns were used at the School of Artillery in support of forward observer training and remained in service with 53 Bty until the 105mm ammunition stocks were cleared," he said.

"The entire fleet has now been replaced by the 155mm M777A2, which incorporates a full digital thread from the observer to the guns.

"The final field exercise marked the last live firing of the guns while in service with the RAA."

Lt Parry said the firing was in support of the Regimental Officers Gunnery Course fire planning phase.

"The men of 53 Bty have served with the light guns for most of their careers and were very excited to be a part of the final firing of the light guns," he said.

Detachment 2IC LBdr Peter Graham said it was a privilege to be a part of history, not only for the battery, but also for the regiment.

"I am sad to see the light guns go, but the future of the RAA is looking very bright with the new digital equipment," he said.

Gnr Ryan Grinter said he had the privilege of working with the guns and would miss them.

"It was an honour to be a part of the final live fire of the L119, however, I'm confident the M777A2 is a very worthy replacement and I look forward to working with them for some time," he said.

The School of Artillery's CO and chief instructor, Lt-Col David Edwards, said the 105mm guns were a robust and highly mobile gun, serving for more than 20 years in the RAA.

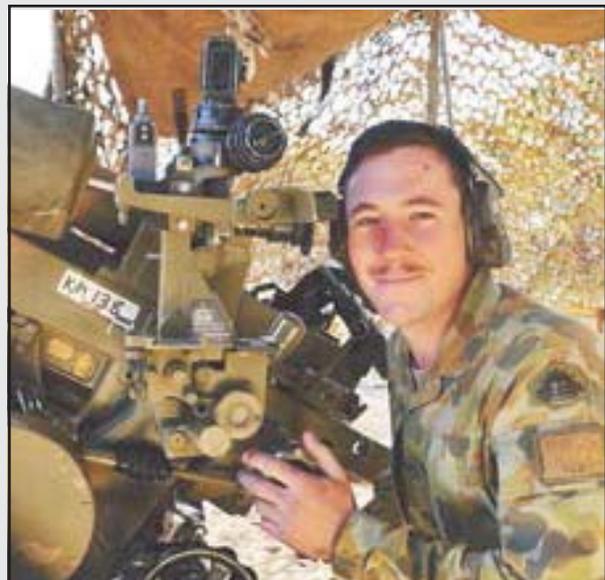
"The last rounds fired in November mark the end of an era for the 105mm gun as it makes way for the 155mm medium howitzers across the regiment," he said.

"We have now moved into the realm of a highly sophisticated and accurate digital gunnery system with M777A2, presenting the RAA with a unique opportunity to develop skills and procedures around the new equipment."

Lt Parry said after the guns were fired for the last time they were returned to the equipment fleet manager at Bandiana.

"The Queen's gun will be the last light gun held within the regiments and is safe in the custody of 1 Regt RAA in Brisbane," he said.

Army January 29, 2015



GNR Ryan Grinter, of 53 Bty, fires one of the last shots from the Hamel Guns at the School of Artillery

Personnel & Training

New Commanding Officer

LIEUTENANT COLONEL ROB ALSWORTH

Commanding Officer 8th/12th Regiment RAA



Lieutenant Colonel Rob Alsworth was born and raised in the United Kingdom. He completed initial schooling in local public schools and then undertook tertiary studies at the University of Wales where he was awarded a Bachelor of Arts in History and Politics in 1993. On completion of his degree he entered the Royal

Military Academy Sandhurst and commissioned into the Royal Artillery in 1994.

His early career included tours with Airborne and Commando Regiments where he was employed as a troop commander, ADC, forward observer, operations officer and adjutant. His initial operational experience included deployments to Bosnia and Kosovo and to Sierra Leone as a forward observer with the Commando Brigade's Reconnaissance Force. In 2003, he deployed to Iraq in the infantry role, commanding the Brigade Operations Company.

In 2003 he attended the UK's Advanced Command and Staff College, attaining an MA in Military Technology. In 2005 he was posted to Headquarters Allied Rapid Reaction Corps (ARRC) as SO2 Joint Effects Plans where he was the principal planner for all lethal and non lethal effects. This tour included six months in Headquarters International Security Assistance Force (ISAF), during the expansion of ISAF's mandate throughout Afghanistan. In this role

he contributed to strategic and operational plans, drafted ISAF's first Targeting Directive and supported the execution of operational level dynamic targeting.

As a Battery Commander in 29 Commando Regiment Royal Artillery, Lieutenant Colonel Alsworth returned to Afghanistan in 2008, supporting 42 Commando as the Regional Battlegroup (South). In this role he was involved in numerous Commando group aviation assaults and was often involved in high intensity combat actions, synchronizing a complex and comprehensive suite of Joint Fires assets with full Battlegroup level manoeuvre.

In 2009 Lieutenant Colonel Alsworth laterally transferred into the Australian Army. His first posting, as the Deputy Chief Instructor at RMC-Duntroon, enabled him to assimilate rapidly into the culture and traditions of the Australian Army. His involvement in the review of the All Corps Officer Training Continuum and his leadership of the five yearly evaluation of RMC training provided him an excellent opportunity to gain a deep understanding of the contemporary challenges facing officers throughout the units and formations of the Australian Army.

Lieutenant Colonel Alsworth was subsequently posted to Army Headquarters where he was employed as Staff Officer to Director General Resources Management – Army for a short period before moving to SO2 Preparedness in the Directorate of Military Commitments. In this latter role he restructured Army's monthly preparedness reporting and the annual Chief of Army's Preparedness Directive. He also led a strategic review into the employment and future direction of ACMS.

On promotion to Lieutenant Colonel in 2013 he was posted to HQJOC as SO1 J1, responsible for the development and management of the Operational Manning Directives for all ADF operations and JOC

led exercises. His tenure was characterised by support to short notice ADF operations in response to complex world events, such as MH 370, MH17 and the rise of ISIL.

Lieutenant Colonel Alsworth and his wife Katie, an intensive care nurse, have two sons, William (13) and Henry (10). He enjoys rugby, keeping fit, watersports, skiing and home brewing.

New Regimental Sergeant Major

WARRANT OFFICER CLASS ONE STEPHEN J SCHUMAN
4th Regiment RAA



Warrant Officer Class One Stephen Schuman was born in Manly, NSW on 11th August 1973. He was raised and educated in the small rural town of Tingha situated in Northern NSW. He enlisted in the Australian Regular Army on 14th August 1990 and has held a variety of Land and Training Command appointments.

After recruit training Warrant Officer Schuman was allocated to the Royal Australian Artillery and completed his initial employment training at the School of Artillery. Warrant officer Schuman was then posted to 4th Field Regiment, Royal Regiment of Australian Artillery, Townsville, where he spent seven years. Warrant Officer Schuman progressed to the position of detachment commander. In 1998, he was posted to the School of Artillery with the raising of 53rd Independent Training Battery as a detachment commander. In 1999, Warrant officer Schuman was posted to 8th/12th Medium Regiment. In 2000 Warrant Officer Schuman was promoted to Sergeant. Warrant Officer Schuman was then posted to Regional Training Centre Northern Territory as an instructor on Subject One for Corporal Course.

In January 2005, Warrant Officer Schuman was promoted to Warrant Officer Class Two and was posted to 2nd/10th Field Regiment as a Sergeant Major Instructor Gunnery. Warrant Officer Schuman was then posted back to the School of Artillery as a Sergeant Major Instructor Gunnery in 2010 Warrant

Officer Schuman was posted to 8/12 Medium Regiment as the Battery Sergeant Major 101st Medium Battery. Warrant Officer Schuman was promoted to Warrant Officer Class One in 2012 and was appointed as the Regimental Sergeant Major Joint Proof Experimental Unit.

Currently, Warrant Officer Schuman is employed as the Regimental Sergeant Major 4th Regiment RAA where he commenced his appointment in 2015.

Warrant Officer Schuman has seen operational service in East Timor with 3rd battalion group as apart of INTERFET in 1999-2000; Afghanistan as apart of operation Herrick 7 with the Grenadier Guards Battle Group 2007. More recently Warrant officer Schuman deployed to Afghanistan as apart of the Artillery Training Team Kabul, during Operation Slipper 2010-2011.

Warrant Officer Schuman was awarded the Chief of Army Commendation for his work as the Battery Sergeant Major of 101st Medium Battery 8th/12th Medium Regiment.

Warrant Officer Schuman has also been awarded, the Australian Active Service Medal (East Timor and ICAT Clasp); the Defence Force Service Medal; the Australian Defence Medal; the INTERFET medal, the International Security Assistance Force Afghanistan medal; the Afghanistan campaign medal and the Army Combat Badge.

Warrant Officer Schuman is married to Paula and has two children, Lauren, 18 and William, 14. His interests include Rugby union and league with a keen interest in fishing.



Full-time Senior Officer List

<i>Rank</i>	<i>Last Name</i>	<i>First Names</i>	<i>Post Nominals</i>	<i>Position Title</i>	<i>Unit</i>
MAJGEN	BILTON	Gregory Charles	AM, CSC	Deputy Commanding General US Army Pacific	AS ARMY STAFF O/S
MAJGEN	COGHLAN	David Peter	AM	Student LTS	AHQ
MAJGEN	MCLACHLAN	Paul David	AM, CSC	Head Land Systems	LSD
MAJGEN	SYMON	Paul Bruce	AO	Military Officer First Principles Review	OFFICE OF THE CDF
BRIG	FINNEY	Graeme William	OAM	Director General Army Operations	AHQ
BRIG	FURINI	Craig Dennis	CSC	CJ5 Combined Joint Task Force	OPS STPP
BRIG	GATES	Peter Campbell	CSM	Commandant ACSC	ACSC, ADC
BRIG	GOODMAN	Wayne Leonard	AM	Head - ADF Arts for Recovery Resilience Teamwork & Skills	AHQ
COL	AHERN	Michael Rodney		Director Munitions SPO	DMO
COL	BAILEY	Brian James	CSC	Deputy Commander NORCOMD	NORCOM
COL	CLINGAN	Scott Edward		Director Centenary of Anzac	AS ARMY STAFF O/S
COL	COMBES	Andrew James		Long Service Leave	ARMY
COL	DOUGALL	John Angus		Director Combat Support Systems Program Office	LSD
COL	HAEBICH	Andrew Mark		Deployed	OPS STPP
COL	HUME	Steven John		Director Military Operations and Liaison	DMO
COL	KELLY	David John		Director Workforce Strategy - Army	AHQ
COL	KENNEDY	Michael Robert C.		Director Personnel Policy - Army	AHQ
COL	KENNY	Stuart Nicholas	CSC	Student LTS	CDSS, ADC
COL	MCINTYRE	Anthony Paul		Commandant CATC	HQ CATC
COL	MCLEAN	John Brendan	CSC	Project Director - Land 121 PH 4	DMO
COL	PLANT	Andrew Alfred		Director Defence Preparedness Requirements and Joint Concepts	JCCD
COL	RYAN	Sean Thomas		Student LTS	CDSS, ADC
COL	SADDINGTON	Stephen Michael		Director Capability Development - Army	AHQ
COL	SWEENEY	Neil Thomas		Student LTS	CDSS, ADC
COL	VAGG	Richard Anthony		Director of Military Art	HQ RMC
COL	WELLER	Charles Peter H.		Director Force Development - Army	AHQ
COL	WOOD	Brandon Ashley		Director Senior Officer Management	PS&C, DPG

Full-time Regimental Sergeant Major List

<i>Worn Rank</i>	<i>Name</i>	<i>Post Nominals</i>	<i>Job Description</i>	<i>Location</i>
WO1	Andersen, Richard Enghave		INSTR ARTY WO1	ENOGERA
WO1	Boyce, Grant Leigh		ASST ADMIN RAA WO1	BRINDABELLA
WO1	Byrne, Thomas Alan		ASST ADMIN Any ARMS WO1	KARRAKATTA
WO1	Clayton, Mark Reginald		RSM Any Corps TIER B WO1	VICTORIA BARRACKS PADDINGTON
WO1	Clifford, Craig Keiran		RSM AA AVN TIER A WO1	TOWNSVILLE AIR FORCE BASE
WO1	Fox, Brendan John		RSM RAA TIER A WO1	WOODSIDE
WO1	Franklin, Brett Anthony		RSM Any Corps TIER B WO1	KARRAKATTA
WO1	Holstein, Paul Geoffrey		RSM RAA TIER A WO1	ENOGERA
WO1	Hortle, Anthony Maxwell		RSM RAA TIER A WO1	PUCKAPUNYAL
WO1	Johnson, Michael Ian		RSM Any ARMS TIER B WO1	PUCKAPUNYAL
WO1	Kennedy, Tony Lionel		INSTR RAA WO2	LAVARACK
WO1	Kyrwood, Barry Colin		ASST ADMIN Any ARMS WO1	ENOGERA
WO1	Lehr, David Ross	OAM	RSM Any ARMS TIER B WO1	LAVARACK
WO1	McGarry, David Thomas		RSM RAA TIER A WO1	ROBERTSON
WO1	Nutini, David		RSM Any Corps TIER A WO1	ALBATROSS
WO1	Rayment, David Thomas		SM Any Corps TIER A WO1	KOKODA BKS
WO1	Schuman, Stephen James		RSM RAA TIER A WO1	LAVARACK
WO1	Sullivan, Matthew James	CSM	SM RAA TIER B WO1	PUCKAPUNYAL
WO1	Thompson, Simon Peter		MNGR OPS OFF SPT TIERA WO1	ENOGERA
WO1	Torney, Ronald James		ASST ADMIN Any ARMS SGT	KESWICK
WO1	Dewar, Michael Scott		MNGR OPS OFF SPT TIERA WO1	PUCKAPUNYAL
WO1	Jarvis, Jason Graeme		ASST ADMIN RAA WO1	WOODSIDE
WO1	Baker, Stuart James	CSM	SM RAA TIER A WO1	PORT WAKEFIELD
WO1	Callaghan, Darren Blain		ASST ADMIN Any Corps WO2	KAPOOKA
WO1	Grundell, David Ramon	CSM	MNGR OPS OFF SPT TIERA WO1	LAVARACK
WO1	Humphrey, Miles Matthew		MNGR OPS OFF SPT TIERA WO1	PUCKAPUNYAL
WO1	Lindsay, Damien Paul		RSM Any Corps TIER A WO1	CARLTON
WO1	McIntyre, Brenden Robert		INSTR ARTY WO1	VICTORIA BARRACKS MELBOURNE
WO1	Quinn, James Anthony		SM RAA TIER A WO1	GRAYTOWN
WO1	Sinclair, Dean Joseph		MNGR OPS OFF SPT TIERA WO1	ROBERTSON
WO1	Carmichael, Stephen Donald		MNGR STA TIER A WO1	ENOGERA
WO1	Voss, Sean John		RSM RAA TIER A WO1	ENOGERA

Innovations in Army HR

Major John Batayola
Second In Command, School of Artillery
& SO2 Head of Regiment

Introduction

Like any other organisation, the Army is not immune to the effects of social and workforce pressures. There are many reasons why soldiers leave the Army and they vary from desiring for better work-life balance and Army's relevance to wider society as an employer. To be relevant to society in the future, the Australian Army will need to look into innovative ways for human capital sustainability while nurturing its competitive advantage. Then Chief of Army Lieutenant General Ken Gillespi envisioned the Army as an agile and adaptive organisation that develops contemporary personnel initiatives both on operations and in peacetime to retain soldiers in a job that gives them meaning and desiring to serve in a trusted institution (APP09-18, p. iii).

To be relevant to society in the future, the Australian Army will need to look into innovative ways for human capital sustainability while nurturing its competitive advantage.

The aim of this paper is to examine Army HR issues and present innovative HR concepts with the view of improving a soldier's work-life balance, addressing work-load intensification, employment sustainability, and provide a positive impact on Army's Corporate Social Responsibility. This paper also aims to provoke discussions on HR and corporate governance issues being currently experienced in Army.

Contemporary Army HR Issues

The Australian Army's HR mission is to generate and sustain people capability in order to deliver land capability now and into the future (APP09-18, p. 3). This HR mission acknowledges contemporary HR issues that are not only facing Army, but also the

wider workforce. Future HR policies need to address human sustainability and concepts such as the role of HR in organisational survivability and Corporate Social Responsibility (CSR). CSR, both internal and external, is increasingly being linked to employee well-being and work-life balance (Brown et al. 2009, p. 277).

Army acknowledges that it will have to deal with an ageing workforce consistent with that of the wider society. It is becoming apparent that work-life balance is increasingly becoming part of employment commitments. Current sustainability programs such as 'career pathways' and trade transfers still subject soldiers to the rigours of geographical postings and work-life imbalance. There are evidences that intensification of work and poor work-life balance is a significant cause of personnel leaving the Army.

HR experts recognise that achieving work-life balance is becoming more and more elusive and HR therefore must focus on innovative policies that address this. Many companies now have flexible working hours, work-at-home scenarios, and day cares at work areas (Saltzstein, Ting & Saltzstein 2001, p. 453). Army is not immune to these realities and must adopt innovative HR policies to deal with similar employment issues.

Relevant HR and Innovation Management Concepts

Modern management concepts equate innovation with organisational survival. It is imperative for companies to gain competitive advantage and increasingly this is pointing towards an advantage gained from a company's human resource (Sheehan, Holland & De Cieri 2006, p. 132). Shipton et al (2006, p. 19) admonishes that HR must have a primary role in rendering organisational innovativeness. The Army needs to increase both technical and administrative innovation in order to survive. Technical innovation, a change in product or service and administrative innovation, a change in organisational forms can both be mutually supporting and does not have to be exclusive (Jimenez-Jimenez & Sanz-Valle, 2008, p. 1209). These are concepts that can be applied to job designs as will be discussed in later paragraphs to address employment issues that are not necessarily remuneration-driven.

It is my opinion that Army's function as an immovable pillar of society is becoming eroded as it slowly becomes more corporate in structure and culture. Army is slowly being civilianised with the

outsourcing of many support functions (i.e. security, clerical, range management, service automation, maintenance and logistics). HR can play a role in formulating innovative policies that not only cares for employees, but ensures the survival of its culture.

Beyond Remuneration and Traditional Benefits

The military environment is one of the most technical workplaces and the notion of 24/7 availability is a constant reality. In addition, most soldiers struggle with the thought of using deadly force and this responsibility vested in them by society. These, notwithstanding the normal impost of life and relationships can be quite demanding and stressful (Cotton 2001, p. 2).

Forsyth and Polzer-Debruyne (2007, p. 114) defined work-life balance as the creation of a productive work culture where the potential for friction between work and personal lives are minimised. It is interesting to note that more than 50% of personnel are unsatisfied with their current work-life balance (APP09-18, p. 18). Other activities are beneficial to work-life balance such as social pursuits, exercise, and care for dependents. With the increasing work load, lesser time is becoming available for physical fitness. There is a blurring of home and work life due to emails, and IT and the proliferation of technology makes transfer of knowledge expeditious, stressful to cope with, and the creation of clutter and prioritising information exerts stress on an already shrinking workday (Kossek 2005, p. 108).

The desire to stay in one place is the top reason why soldiers leave the Army and many leave to seek another line of employment while they still can (APP09-18, p. 16). Anecdotes abound pertaining to Army spouses that are unable to find meaningful careers due to the constant cycle of geographical postings. This causes frictions between soldier and spouse. In addition, children become disadvantaged due to constant changing of schools and varying state educational standards.

It can be said that well-being is about taking care of the welfare of employees which is now expanding to how employees deal with stressors (Brown et al. 2009, p. 271). It is noted that soldiers feel they are overworked and that there are not enough personnel to accomplish work (APP09-18, p. 16, 18). Why is this so when many of our enablers have been contracted with the end view of allowing uniformed personnel to focus on their core tasks? Studies

attest to today's workloads as increasing and results in staff burn-out. With the advent of the knowledge era and digital technology, there is just not enough time to do everything at work (Pocock 2005, p. 200). This has been exacerbated by decreasing staff levels as a result of automation and outsourcing due to a focus on cost savings and 'productivity' (Kossek 2005, p. 107). Automation and self-help systems cuts labour costs, but the legwork to deal with automation when it fails is imposed on soldiers which in turn compete with their primary role.

The desire to stay in one place is the top reason why soldiers leave the Army and many leave to seek another line of employment while they still can.

HR, in its mandate to support cost cutting, rarely look into job designs that will not immediately solve cost efficiencies. Internal Army sentiments understand that effective mentoring is key to work-life balance and alleviating intensification of work (Ashley 2009, p. 35). Army must demonstrate resolve in considering HR policies that addresses the effects of employment on employee well-being which will result in long term efficiencies and positive social impacts.

Should work-life balance be tackled as an organisational issue? In previous years, government have emphasised productivity through cost cutting (Gurdon, p. 476). There is increasing pressure on public sectors to adopt a more commercial orientation due to the perception of bureaucratic wastage. I believe this pressure causes government agencies to trivialise work-life balance and render it a personal issue rather than an organisational one. Studies have suggested that showing the desire for work-life balance over the desire to perform well at work is taken negatively by government departments as it demonstrates sub-standard drive in ambition (Brunetto, Farr-Wharton & Shacklock 2011). Strategic HR suggests that in the knowledge era, work-life balance must be a prime consideration for organisations. Kaplan's renowned measure of success, the balanced scorecard, recognises employee motivations, empowerment and alignment as measures of strategic success (Kaplan & Norton 1996, p. 127-140). Motivation, empowerment, and alignment of employee desires and goals are therefore powerful determinants of

strategic success and should be considered when formulating policies.

Innovative Job Re-design

Innovation is described by Schumpeter in the 1930's as introducing a new product, new method and new markets (Goffin & Mitchell 2010, p. 7). Cirque du Soleil is an excellent example of innovation at work by changing the way that circus is perceived. The company steered away from expensive animal shows and focused on theatrical themes while retaining their competitive advantage (ie, acrobatic skills) that spectators desire to see (Kim & Mauborgne 2004, p. 2). What then is the Australian Army's competitive advantage over other organisations and indeed over other armies? The soldiers and their culture. It is my opinion that this very culture is becoming eroded due to cost cutting and outsourcing. Minor as it may seem, our culture is defined by our heritage embodied in our messes, ceremonies, field exercises, barracks environment and our ability to engage in unfettered mentoring which defines our psychological contract. This culminates in the skills we possess not just in the application of combat power but also in critical thinking, problem-solving and the resolve to get things done. Related to this concept is the concept of skill retention, much like the example of Cirque du Soleil. I believe the retention of skills while re-designing jobs is a primordial consideration in innovative job designs to address soldier work-life balance and employee well-being.

Bowditch et al (2008, p. 87) defines psychological contract as the unwritten reciprocal obligation between employer and employee. An employee becomes subject to the authority of the organisation in exchange for the fulfilment of his personal needs. It is interesting to note that this contract is intensified within the military context due to the unique tasks given to its personnel. I believe downsizing and civilianising of military services, a significant HRM solution for the past 20 years due to pressures on Defence to adopt a more corporate approach, is eroding this psychological contract. There is a paternalistic relationship between leaders and soldiers where leaders take care of soldiers in exchange for facing danger and isolation from family and support. Paternalism, although a pejorative of modern HRM, is important in the maintenance of Defence's 'culture' (Jans 2001, pp. 48-52). If people are expected to show greater commitment to organisations, then they must be provided with an opportunity to fulfil their personal goals and address their situations. Not surprising,

the downsizing and re-structuring fad, even in the civilian work force, is perceived to be violating psychological contracts (Bowditch, Buono & Stewart 2008, p. 98).

An important aspect of HR is recognising the various needs and family responsibilities of employees at different stages of their lives (De Cieri et al. 2008, p. 328). Past their prime, soldiers who desire more positive work-life balance should be catered to intently by Army with HR policies that address their issues substantially. This is in line with honouring the intense psychological contract between Army and soldiers. Supporting employee's ambitions and desires by promoting the psychological contract have the potential to drive organisational success (Hoffman, Casnocha & Yeh 2013, p. 58). Opportunities abound to tackle geographical instability, work-life balance and retention while retaining tacit knowledge. Army soldiers can be meaningfully employed beyond their prime, while retaining tacit knowledge for mundane day to day work, and addressing the work overload issue. These soldiers can be offered a 'parallel' employment in areas requiring the tacit knowledge gained from years of soldiering. Currently, these functions support Army core tasks and are mostly outsourced. Remuneration can be adjusted with commensurate work day hours and responsibilities, while retaining rank and non-remunerative benefits. To those desiring better work-life balance, a decrease in remuneration may be an acceptable trade-off.

Army is not immune to these realities and must adopt innovative HR policies to deal with similar employment issues.

Re-designing work to relieve valuable talent of mundane responsibilities to achieve focus on more important tasks is already pursued by competitive companies. Orrick, Herrington and Sutcliffe, a very successful San Francisco-based law firm, shifted routine discovery work previously done by partners to a new service centre in West Virginia staffed by lower paid lawyers. The key to competitive advantage in the knowledge era is to redefine the jobs of experts and transferring some of their repetitive transactional work (Dewhurst 2013, p. 60). This is real innovation compared to the current HR practice of merely expanding the talent pool through training and development. This focuses job descriptions in areas where talent is scarce and revamping talent to accommodate other ways of

working. The HR innovation for Army is the transfer of transactional tasks to capable soldiers who are willing to be remunerated less in exchange for better work-life balance. This may mean that you have an expert in weapons and security guarding Army bases rather than civilian guards whose immediate action when there is trouble is to call '000'. Considering this in today's heightened domestic security environment makes sense.

Some Examples

In light of recent attempts to attack Australian Army bases and the rise of home-grown terrorism, an immediate armed response could be required in case police are not able to pre-empt terrorist intent. Having soldiers securing bases forms an immediate deterrent to would-be attackers. It appears that to address heightened security, policy and doctrine improvements are what Army is pursuing, not the ability to immediately respond and deter attacks. I have nothing against tactical police squads and counter-terrorism crack units, but in many respect deterrence and immediate action are better than reactionary pursuits.

Having clerical support with extensive practical knowledge of Army's daily business (ie, correspondence, training, travel and financial transactions) can allow the seamless running of core Army functions. An experienced soldier would normally be able to forecast clerical requirements which value-add to the running of core Army business by allowing officers and senior non commissioned officers unfettered time to mentor subordinates and peers. Doing one's administration I suppose is acceptable and cost-effective, but getting through the quagmire of bureaucratic documentary and process compliances costs as well in terms of mental fatigue and other opportunity costs such as lost time. I suspect that if an empirical study is conducted it will show that a third of an officer/non commissioned officers day is spent on clerical matters, processes and automated systems. And we wonder why our officers/non commissioned officers don't spend as much time mentoring.

The increasing civilianisation of logistics is resulting in the loss of unit engineering workshops and maintenance. Army is increasingly reliant on civilian contracts to deliver even the most mundane of maintenance which affects a unit's ability to provide timely capability effects. Currently, civilian logistics and maintenance contracts are under-staffed as they too pursue cost-cutting efficiencies at the peril of timely repairs and delivery. Qualified soldiers

who opt to stay permanently in a geographical location can deliver capability maintenance support under direct control of the requiring unit.

The best employee to deliver and monitor WHS compliance are experienced soldiers who understand the context of risk as applied to Army. A civilian company's risk environment is different from Army in that Army undertakes many activities that are inherently dangerous. Many COMCARE investigations are staffed through civilian WHS advisers who have limited understanding of Army's risk environment. This affects our responsiveness to investigations and the undue review of Army doctrine and operating procedures. Many civilian WHS systems, due to this lack of perspective, impose civilian-oriented WHS measures that accidentally degrade Army's ability to deliver capability.

Operating military ranges is a highly specialised aspect of facilities management which can only be delivered by technical experts in live fire ranges. Army personnel have the technical expertise and understanding of the behaviour of munitions as applied to manoeuvre, weather and terrain. Civilian contracts, due to the significant technical expertise required for these jobs are heavily reliant on ex-army personnel as their pool of range control officers.

Conclusion

A soldier's psychological contract with Army is heightened by the complexities of Army life and the responsibilities vested in them by society. The Australian Army is not immune to realities of employment in today's knowledge era. Increasingly, it is becoming hard to experience optimal work-life balance and the intensifying of work due to government cost cutting pressures adds to existing stressors. Army HR will need to intently address the desires of soldiers for better work-life balance and well-being beyond remuneration and traditional benefits. By pursuing innovative job designs that addresses geographical stability and opportunities beyond a soldier's prime will achieve positive work-life balance and retention of tacit knowledge and bolster Army's inherent competitive advantage: its talented and results-driven human capital and its culture of getting the job done. The future of Army HR is in addressing the social impacts of a very challenging and stressful employment. Addressing the social impact of employment will improve the productivity and efficiency of soldiers, improve retention and loyalty to the organisation, and

improve Army's standing in society. The end result is the survival of Army's 'can do' culture, the very culture required to 'win the land battle'.

The Author

Major John Batayola is the Second-in-Command School of Artillery. He holds a Bachelor of Science from the University of Santo Tomas Manila and has recently finished his studies towards an MBA specialising in Human Resource Management at Deakin University.

References

- Army People Plan, 2009-2018.
- Ashley, D 2009, 'Adaptive Campaigning and the Need to Empower our Junior Leaders to Deliver the "I'm an Australian Soldier" Initiative', *Australian Army Journal*, vol. 6, no. 3, pp. 33-38.
- Bowditch, J, Buono, A & Stewart, M 2008, *A Primer on Organisational Behaviour*, 7th edn, John Wiley and Sons, NJ USA.
- Brown, M, Metz, I, Cregan, C & Kulik, C 2009, 'Irreconcilable Differences? Strategic Human Resource Management and Employee Well-being', *Asia Pacific Journal of Human Resources*, vol. 47, no. 3, pp. 270-294, retrieved 20 August 2014, Deakin University Library Sage Journals database.
- Brunetto, Y, Farr-Wharton, R & Shacklock, K 2011, 'Using the Harvard HRM Model to Conceptualise the Impact of Changes to Supervision Upon HRM Outcomes for Different Types of Australian Public Sector Employees', *The International Journal of Human Resource Management*, vol. 22, no. 3, pp. 553-573, retrieved 3 September 2014, Business Source Complete database.
- Cotton, A 2001, 'Non-operational Military Stress Management in the ADF: Where Have We Been, and Where are we Going?', *The Management of Stress in the Australian Defence Force*, p. 2, Department of Defence, ACT.
- De Cieri, H, Kramar, R, Noe, R, Hollenbeck, J, Gerhart, B & Wright, P 2008, *Human Resource Management in Australia: Strategy, People, Performance*, 3rd edn, McGraw Hill Australia Pty Ltd, Sydney.
- Dewhurst, M, Hancock, B & Ellsworth, D 2013, 'Redesigning Knowledge Work', *Harvard Business Review*, Jan-Feb edn, pp 59 - 64.
- Forsyth, S & Polzer-Debruyne, A 2007, 'The Organisational Payoffs of Perceived Work-life Balance Support', *Asia Pacific Journal of Human Resources*, vol. 45, no. 1, pp. 113-123, retrieved 24 August 2014, Deakin University Library Sage Journals database.
- Goffin, K & Mitchell, R 2010, *Innovation Management : Strategy and Implementation using the Pentathlon Framework*, 2nd edn, Palgrave MacMillan, NY.
- Gurdon, M 1985, 'The Emergence of Co-determination in Australian Government Employment', *International Labour Review*, vol. 124, no. 4, Jul-Aug edn, pp. 465-478, retrieved 16 September 2014, Business Source Complete database.
- Hoffman, R, Casnocha, B & Yeh, C 2013, 'Tours of Duty: The New Employer-employee Contract', *Harvard Business Review*, June edn, pp. 49-58.
- Jans, N 2001, 'Organisational Change and Human Resource Management in the ADF', *The Management of Stress in the Australian Defence Force*, p. 48, Department of Defence, ACT.
- Jimenez-Jimenez, D & Sanz-Valle, R 2008, 'Could HRM Support Organizational Innovation?', *The International Journal of Human Resource Management*, vol. 19, iss. 7, pp. 1208-1221, retrieved 4 September 2014, Deakin University Library Taylor Francis Online database.
- Kaplan, R & Norton, D 1996, *The Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Press, Boston MA.
- Kim, W & Mauborgne, R 2004, 'Blue Ocean Strategy', *Harvard Business Review*, Oct edn, pp. 1-9.
- Kossek, E 2005, 'Workplace Policies and Practices to Support Work and Families', *Work, Family, Health and Well-being*, 1st edn, Lawrence Erlbaum Associates, NJ.
- Pocock, B 2005, 'Work-life Balance in Australia: Limited Progress, Dim Prospects', *Asia Pacific Journal of Human Resources*, vol. 43, no. 2, pp. 198-209, retrieved 3 September 2014, Deakin University Library Sage Journals database.
- Saltzstein, A, Ting, Y and Saltzstein, G 2001, 'Work Family Balance and Job Satisfaction: The Impact of Family Friendly Policies on Attitudes of Federal Government Employees', *Public Administration Review*, Jul-Aug edn, pp. 452-467.
- Sheehan, C, Holland, P & De Cieri, H 2006, 'Current Developments in HRM in Australian Organisations', *Asia Pacific Journal of Human Resources*, vol. 44, no. 2, pp. 132-152, retrieved 4 September 2014, retrieved 4 September 2014, Deakin University Library database.
- Shipton, H, West, M, Dawson, J, Birdi, K & Patterson, M 2006, 'HRM as a Predictor of Innovation', *Human Resources Management Journal*, vol. 16, iss. 1, pp. 3-27, retrieved 1 September 2014, Deakin University Library Wiley Online Library database.

Fiery first for gunners

101 BTY DEPLOYS TO BRADSHAW

GUNNERS from 101 Bty, 8/12 Regt RAA, were the first artillerymen to ever conduct live-firing at the Bradshaw Field Training Area (BFTA) when they supported US Marines during Exercise Koolendong last month.

101 Bty's Capt Matt Seabrooke said his soldiers were excited to conduct the exercise in a training area that was unfamiliar, and to support the Marine Rotational Force - Darwin (MRF-D).

"101 Bty prepared for and deployed on the exercise as we would for any operation throughout the region," he said. "Our goal was to defend the gun position while retaining the ability to provide fire support."

The battery deployed to BFTA with four M777A2 155mm lightweight howitzers and the full digital communications suite. This allowed forward observers to send fire missions digitally through the Battery Joint Fires and Effect Coordination Centre (JFECC), where de-confliction with air and ground manoeuvre forces occurred.

The target data was then sent to the battery command post (BCP) where the mission firing data was computed, sent to the guns and acted on. BSM WO2 Brendan Colles said their aim was to integrate the isolation of BFTA into their training.

"There were no trips back to Darwin to collect or repair stores or equipment," he said. "We could only use what we brought with us. If our equipment wasn't properly cared for and broke, we had to make do without it."

The battery's goal was to provide joint fires and effects in support of US Marine Corps (USMC)-led joint land combat. The JFECC was assigned to the USMC fires support cell within task force HQ, with joint fires teams supporting USMC rifle companies and their scout/sniper capability. The gun line conducted fires directed by US and Australian observers.

LBdr Leigh Brewer, of the 101 Bty JFECC, said he enjoyed working with the marines. "Having worked alongside American forces in Afghanistan, I had previous experience with working in a multinational HQ and could bring my experience to assist the operation and integration of the JFECC with the USMC command operations centre," he said.

Battery commander Maj Dave Silverstone was impressed with his troops. "The exercise was an opportunity to critically analyse their approach to joint fires against the procedures used by USMC, while confirming our ability to deploy into an unfamiliar area to conduct operationally relevant training," he said.

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Germ Journal

105 Battery

President - Graeme Maughan AFC
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Tiger Rag (Newsletter)

Editor - Arthur Burke OAM
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106 Battery

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107 Battery

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Ram - Ramblings (Newsletter)

Editor - Warren D. Feakes
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Website: www.107fdbty.com

108 Battery

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The Journal With No Name (Newsletter)

RAA Association (QLD) Inc

President - Colonel Vern Mullins RFD ED
Secretary - Lieutenant Colonel Ron West
P O Box 174, Lutwyche, QLD 4030
Mob: 0408 073 944
Email: qld.gunline@gmail.com
Website: <http://www.artilleryqld.com.au/>

Gunline (Newsletter)

RAA Association (NTH QLD)

President - Paddy Durnford
362 Carlyle Gardens, Condon, QLD 4815
Phone: (07) 4755 1005
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Email: paddy@yourhub.com.au

Secretary - Michael Dinnison
18 Mango Ave, Mundingburra, QLD, 4812
Mob: 0467 799 583
Email: mdib50@yahoo.com.au

Gunners Gossip (Newsletter)
To Be Advised

RAA Association (NSW) Inc

President - Lieutenant Colonel Alain Dunand
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Email: president@artillerynsw.asn.au

Secretary - Michael Carrodus
G P O Box 576, Sydney, NSW 2001
Email: secretary@artillerynsw.asn.au

'Gunfire' (Magazine)

Editor - P O Box W1034, West Cessnock, NSW 2325
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RAA Association (ACT)

President - Lieutenant Colonel Nick H. Floyd
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Shot Over (Newsletter)

RAA Association (VIC) Inc

President - Major N. Hamer RFD
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'Cascabel' (Magazine)

Editor - Alan Halbish, 115 Kearney Drive,
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RAA Association (SA)

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RAA Association (NT)

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Museum Manager - Norman Cramp

RAAANT Newsletter

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Artillery WA (On-line Newsletter)

RAA Association (TAS) Inc

President - Major Graeme Howard
Honorary Secretary - Lieutenant Tony Cordwell
Email: tony.cordwell@tasnursing.com.au
Mob: 0409 356 011
Website: www.tasartillery.com

The Artillery News (Newsletter)

Editor - Mrs Janet Stewart
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Phone: (03) 6339 2450

Australian Air Defence Association Inc.

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Secretary - Michael Streets
AADAA, P O Box 2024, Red Cliff North, QLD, 4020
Email: secretary@aadaa.asn.au
Mob: 0437 008 569
Website: <http://aadaa.asn.au>

Locating Artillery Association

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Phone: (02) 9774 1471
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Email: joekaplun@optusnet.com.au
Vice President - LTCOL Phil Swinsberg
Phone: (07) 3353 5210
Mob: 0425 000 370
Secretary - Bob Morrison
Phone: (02) 4861 6463
Mob: 0417 447 504
Email: robmor@ozemail.com.au
Email: info@locatingartillery.org
Website: www.locatingartillery.org

LOCREP (Newsletter)

Editor: Major Allan Harrison (see above)

131 Locators Association Inc.

Eyes & Ears (Newsletter)
Editor: Paul Dickson
Email: three-zero@hotmail.com

18 Light Anti-Aircraft Regiment Association

Secretary - Paul Hornby
4/23-25 June Place, Gympie Bay NSW 2227
Phone: (02) 9526 5769
Email: sec.181aa@yahoo.com

9 HAA/LAA Regiments Association

President - Phil Easton
29 Michael Crescent, Kiama, NSW 2533
Phone: (02) 4237 6087
Email: pjeaston@westnet.com.au

13 Battery Association Inc

President - Paul Scarborough
Mob: 0418 872 324
Email: paulscarborough@bigpond.com
Secretary - John Parnell

13 Bty Assoc Inc SITREP (Newsletter)

41 Battery/11 Field Regiment RAA Association Inc

President - Graeme Fitzpatrick
25 Manakin Ave, Burleigh Waters QLD 4220
Phone: (07) 5535 1211 (H)
Email: 41btyassn@gmail.com

Gunner Ear (Newsletter)

Fort Lytton Historical Association (QLD) Inc

President - Maurice McGuire, OAM
P O Box 293, Wynnum QLD 4178
Phone: (07) 3399 3198
Email: flhaguides@gmail.com
Website: www.fortlytton.net.au

'The Custodian' (Newsletter)

Editor: Harry Lynas

Fort Scratchley Historical Society

Website: www.fortscratchley.org.au

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

'Australian Artillery Association'

Website:

www.australianartilleryassociation.com

Email:

president@australianartilleryassociation.com

'Royal Australian Artillery Historical Company'

Website:

www.artilleryhistory.org

Email:

raahcoffice@gmail.com

Regimental Fund Benefactors

Correct as at 4th March 2015

LTGEN D.M. Mueller	COL D.L. Byrne	LTCOL N.K. Bolton
LTGEN B.A. Power	COL S.R. Carey	LTCOL J.E. Box (see note)
MAJGEN J.E. Barry	COL S.E. Clingan	LTCOL D.N. Brook
MAJGEN D.P. Coghlan	COL F.G. Colley	LTCOL M.A. Cameron
MAJGEN M.P. Crane	COL M.C. Crawford (see note)	LTCOL J.H. Catchlove
MAJGEN P.J. Dunn	COL J.A.L. Fairless	LTCOL I.D.S. Caverswall
MAJGEN G.J. Fitzgerald	COL R.N. Gair	LTCOL S.G. Condon
MAJGEN G.P. Fogarty	COL S.T. Goltz	LTCOL R.J. Crawford (see note)
MAJGEN T.R. Ford (see note)	COL G.C. Hay	LTCOL C.F. Dodds
MAJGEN S.N. Gower	COL E.D. Hirst	LTCOL D.M. Edwards
MAJGEN J.P. Stevens (see note)	COL C.B.J. Hogan	LTCOL L.D. Ensor
MAJGEN P.B. Symon	COL J.H. Humphrey	LTCOL E.P.M. Esmonde
BRIG M.G. Boyle	COL C.H. Hunter	LTCOL J. Findlay
BRIG J.R. Cox	COL A.G. Hutchinson	LTCOL N.H.B. Floyd
BRIG G.W. Finney (see note)	COL D.J. Kelly	LTCOL R.J. Foster
BRIG C. D. Furini	COL S.N. Kenny	LTCOL N.J. Foxall
BRIG W.L. Goodman	COL W.T. Kendall	LTCOL A.W. Garrad
BRIG N.D. Graham (see note)	COL J.C. Kirkwood	LTCOL I.D.W. George
BRIG J.G. Hughes	COL P. Landford	LTCOL R.G. Gibson
BRIG J.A.R. Jansen	COL P.J. Lawrence	LTCOL G. Gilbert
BRIG P.R. Kilpatrick	COL M.G. Lovell	LTCOL K.R. Hall
BRIG R.A. Lawler	COL I.A. Lynch	LTCOL P.D. Harris
BRIG I.G.A. MacInnis	COL R.M. Manton	LTCOL M. Harvey (RNZA)
BRIG T.J. McKenna	COL N.H. Marshall	LTCOL B.N. Hawke
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BRIG G.T. Salmon	COL A.A. Plant	LTCOL R. Maurice
BRIG W.M. Silverstone	COL J.C. Platt	LTCOL J.H. McDonagh (AALC) (see note)
BRIG G.B. Standish	COL G.G. Potter	LTCOL P.D. McKay
BRIG B.G. Stevens	COL D. Quinn	LTCOL K.W. MacKenzie
BRIG R.A. Sunderland	COL S.T. Ryan	LTCOL P.D. Monks
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BRIG P.J. Tys	COL G.M. Salom	LTCOL S.G.T. Mott
BRIG A.G. Warner	COL R.H. Stanhope	LTCOL D.M. Murphy (see note)
BRIG D.D. Weir	COL B.J. Stark	LTCOL S.W. Nicolls
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BRIG P.D. Winter	COL R.A. Vagg	LTCOL G.F.B. Rickards
COL S.P. Amor	COL A.D. Watt (see note)	LTCOL L.F. Searle
COL P.F. Appleton	COL W.A. Whyte	LTCOL M. Shaday
COL B.M. Armstrong	COL B.A. Wood	LTCOL C. Taggart
COL B.J. Bailey	LTCOL S.D. Aldenton	LTCOL W.R.C. Vickers
COL J.F. Bertram	LTCOL C.W. Andersen	LTCOL D.H.R. Wilton
COL J.P.C. Black	LTCOL B.J. Armour	LTCOL B.J. Winsor
COL R.V. Brown	LTCOL J.D. Ashton	
COL A.R. Burke (see note)	LTCOL R.M. Baguley	

MAJ A.J. Balsillie (see note)
MAJ W.C. Barnard
MAJ G.K. Bartels
MAJ G.F. Berson
MAJ P.E. Bertocchi
MAJ D.T. Brennan
MAJ J.P. Casey
MAJ P. Cimbalevic
MAJ C.T. Connolly
MAJ J.M. Costello
MAJ S. Denner
MAJ P.K. Dover
MAJ M. Dutton
MAJ M.J. Finnerty
MAJ C.A. Flear
MAJ A.O. Fleming
MAJ W.J. Francis
MAJ T.J. Gibbings
MAJ W.H. Grimes
MAJ J.M. Groves
MAJ N. Hamer
MAJ M.R. Hartas
MAJ L.P. Hindmarsh
MAJ M.S. Hodda
MAJ S.A. Hompas
MAJ D.A. Jenkins
MAJ G. Johns
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. Ray
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

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.J. Kingsford
LTCOL R.H.E. Harvey
LTCOL P.L. Overstead
LTCOL G.K. Phillips
LTCOL G.W. Tippets
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 officers, warrant officers and sergeants are encouraged to make a financial contribution to the Gunners' Fund or take up the option of a *'Life Subscription'* which then absolves the subscriber from being asked for any further subscriptions. 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;
- 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**.

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>



We Will Remember Them



Anti Aircraft & Air Defence Memorial Woodside Army Barracks, South Australia

Support the Memorial Upgrade

The Anti Aircraft and Air Defence Memorial is located at Woodside Barracks South Australia, and honours the men and woman who served with, or in support of, Air Defence Units during war and peace.

Constructed in 2009 the memorial is positioned just inside the main gate and sits proudly in front of the Regiment's flagpole. Constructed of concrete and black marble it bears the inscription "Lest we Forget" with an image emblazoned on the front depicting two Lewis gunners from the 14th Australian Anti Aircraft Battery during the defence of Darwin in February 1942. The image was taken from a famous painting by Roy Hodgkinson.

Over the years there has been some deterioration of the landscaping surrounding the memorial and the Association is embarking on a project to upgrade the area around the site.

The Association plans to pave around the memorial and border the site on three sides with a low wall. The improvements will create a place of reflection and provide sufficient space for the Regiment to mount a Catafalque party and carry out other drill during memorial services. The wall will be a convenient height to sit, rest and reflect on the deeds accomplished by our predecessors and the outer surrounds of the site will be bordered by trees that will provide some protection from the elements and give a feeling of solitude and peace.



The memorial in its current condition showing the poor state of the surrounding landscaping.



An artist's impression of the upgrade work

We need your help – we are calling on supporters to provide the funds to accomplish the upgrade. Your support will be recognised with an engraved paver and laid near the memorial. This is an exclusive and limited offer for people and organisations to contribute to the landscaping of the memorial. Due to the restricted size of the area there are only a certain amount of pavers available.

To order your paver, please complete and return the order form
or visit our online store at: www.aadaa.asn.au/store.



**AUSTRALIAN AIR DEFENCE
ARTILLERY ASSOCIATION**

A BOND NEVER FORGOTTEN
www.aadaa.asn.au



We Will Remember Them

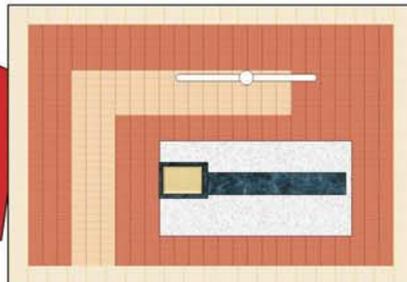


Anti Aircraft & Air Defence Memorial

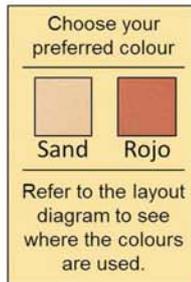
Woodside Army Barracks, South Australia

Make Your Mark!

Take up this exclusive and limited offer to display your pride in Air Defence.



Rojo pavers will cover the bulk of the area, with sand pavers used to border the memorial and provide a path to the Regiment's flagpole.



Single Paver
\$55.00

Have a single paver engraved as a permanent record of your service or simply name your business as a permanent record of your valued support.

3 lines of text are available, up to 16 characters per line.

Double Paver
\$105.00

Use a double paver to recognise you and your family, say a few words or make a dedication.

6 lines of text are available, up to 14 characters per line.

Large 300 x 300
\$250.00

This large 300 x 300 paver is ideal for Unit or Military logos and will border the memorial.

Please contact us to discuss your requirements.

To order your paver, please complete and return the order form or visit our online store at: www.aadaa.asn.au/store.



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Memorial Paver Order Form

Name:	Phone:
Address:	State: Postcode:
Email:	

SINGLE PAVER – 16 CHARACTERS PER LINE Please print clearly using ALL CAPITALS.	\$55	Please indicate your colour* <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>																																																
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DOUBLE PAVER – 14 CHARACTERS PER LINE Please print clearly using ALL CAPITALS.	\$105	Please indicate your colour* <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>																																										
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Payment Method

Money Order <input type="checkbox"/>	Cheque <input type="checkbox"/>	Direct Deposit <input type="checkbox"/>	Cash <input type="checkbox"/>
Cheques and Money Orders payable to: Australian Air Defence Artillery Association Post to: AADAA Villa 9/4 Fradd Road ANGLE VALE SA 5117		Direct Debit BSB: 085180 Acc #: 828503441 Ensure your name is entered as Payee, and reference to a paver purchase.	

For other paver configurations, give us a call on 0437 008 569 or email memorialpaver@adaa.asn.au

Other configurations include triples, 300cm x 300cm singles, and inclusion of certain logos such as the Rising Sun, Unit Logos etc. Call us to discuss your requirements.



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