



Royal Australian Electrical and Mechanical Engineers



 **RAEME | CRAFTSMAN**

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Serving the Nation

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Welcome to the 2023 edition of the Royal Corps of Electrical Mechanical Engineers (RAEME) Journal. This Journal seeks to capture our collective snapshots in time and adds to our corporate memory whilst maintaining our Corps integrity. Our thanks go to our individuals and Units who contribute, for without your efforts this Journal would not exist.

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HEAD OF CORPS



Message from Head of Corps – RAEME Brigadier Ben Slaughter

This year we are planning the Corps Conference for early October in Townsville, which is a terrific opportunity to showcase North Queensland RAEME. I encourage as many RAEME folk as possible to set aside the time to attend. The theme of this year's Corps Conference is future of RAEME. Defence is at an important juncture in our adoption of new technologies and equipment, some of which are completely new industries for Australia including nuclear power, precision strike, and disruptive technologies. As Army's technical Corps we need to better

understand how we can contribute and lead the transition of Army to a technically focused and driven force. This may require fundamental changes to our structures and the way we operate. The Corps needs to get involved and provide our expertise to those developing the future plans. We are interested in your perspectives on the areas we should be exploring so I invite you to contact the Head of Corps team if you wish to shape the topics for the Conference.

There continue to be inroads made on some terrific initiatives:

This will be the inaugural year for the St Eligius Cup. Named after our patron saint, the St Eligius Cup will be a trades skills competition conducted across Australia with the final held in Bandiana for the Corps birthday. Deputy Head of Corps LTCOL Tim Soper is driving this terrific concept and he will release more information later this year.

We continue to build the Corps relationships in our community. Most notably, WO1 Ben Munro has done terrific work with Matt Stone Racing and the Corps has now formalised the relationship. This is a great opportunity for our spanners to get a real time pit crew experience. The Head of Corps team continues to explore similar opportunities and welcome any ideas or suggestions.

It continues to be an honour to serve our great Corps and I am looking forward to an exciting year where we can continue to build on our work.

Arte et Marte



Message from Deputy Head of Corps – Ground

LTCOL Tim Soper

The Army is not effectively maintaining its equipment to ensure maximum mission capability at the least cost. Operators frequently do not perform preventative maintenance of even the most routine nature. In addition, inadequate record keeping and reporting provide Army management a more optimistic picture of equipment condition and status than actually exists. Ultimately, these conditions stem from inadequate local command and first-line supervision...(insufficient) parts, tools, publications, personnel, time for maintenance activities, and insufficient monitoring of

organisational maintenance operations by Army management.

I offered these observations in the last edition of the Craftsman as a point of reference for working through the challenges our Corps continues to face. It's a pretty gloomy outlook for the bloke assigned with the Esprit de corps line of effort; maybe the boss assigned me that one to try to cheer me up? Stay with me though, there is a method to the madness...I think.

The HOC function exists to drive preparedness by enabling a collaborative Army Operating System¹ Briefs well, how do you achieve it? The approach we are seeking to implement sees RAEME Corps efforts align to extant organisations/roles tasked with generating maintenance-engineering capability within the AOS. These efforts will be prioritised to support:

- Directorate of Logistics Plans-Army (DLOG-P), as steward of the Land Domain Support System (LDSS)
- Directorate of Landworthiness (DLw), as Capability Manager Representative-Land Engineering Services (CA62)
- Army Logistics Training Centre (ALTC), as Employment Category Sponsor- Combat Service Support.

LDSS V2.0 ² offers an excellent framework for achieving Corps outcomes. Aligning RAEME Corps input, advice and support to the priorities for LDSS achievement will ensure coherent and meaningful influence on the AOS. LDSS priorities for achievement are:

- Optimising our people capability
- Reorganising force structures
- Transforming doctrine
- Modernising training
- Delivering coherent project artefacts
- Evaluating our progress.

Priority One - Optimising our people capability

RAEME is a technical corps that exists to maximise performance and availability of land materiel. New and innovative technology is of little use if it cannot perform in the manner we require, and cannot be sustained in our context of use.

¹ Army Standing Instruction (Personnel) Part 12, Chapter 7, Paragraph 7.1

² Realising the Land Domain Support System

Technically proficient and passionate people achieve these outcomes, and we are blessed to have a Corps full of such people. HOC effort is focussed upon optimal use of these people, specifically, forcing our system to enable more time on tools. This applies to soldiers as equally as it does to officers and will improve our lived experience and enhance Land Force preparedness.

Priority Two - Delivering coherent project artefacts

Coherent project sustainment artefacts are the result of a disciplined and unified approach to integrate support considerations into system design; develop support requirements aligned to readiness objectives and performance requirements; provide the required support in the operational phase in the most efficient but effective manner.

Shortfalls in Army capacity and focus upon support considerations has resulted in projects working in isolation to generate the best product and support system they can with the guidance they have on hand. The result is our disaggregated support system working to inconsistent objectives that ultimately puts preparedness at risk. As a Corps, we need to bring our expertise to bear in influencing support considerations and outcomes.

Priority Three – Doctrine and Training

LDSS articulates land maintenance Functional Level Attributes and Methods of Employment necessary to support the integrated force. Land Force Maintenance system deficiencies presenting greatest risk to these requirements include:

- Immature battle damage assessment and repair (BDAR) doctrine or training
- Recovery (ECN 226) hollowness, training and employment opportunities
- excessive maintenance footprints
- technical workforce skills and experience necessary to conduct operations without direct industry/OEM support/connectivity.

This is where the Esprit de corps bit comes in, thanks for hanging in and getting this far! The HOC cell is generating training and experience opportunities where it can and demonstrating you can have a good time while being challenged!

- **St Eligius Trophy** – Creation of an annual nationwide military-technician and engineer skills competition to bring focus and enthusiasm to the generation of deployable technical skillsets. Further, activities undertaken as part of this competition will contribute to development of BDAR doctrine, tactics, techniques and procedures.
- **Technical Outplacement** – HOC cell has established a partnership with Matt Stone Racing for pit crew placement of qualified RAEME maintainers at every race on the Supercars series. These placements provide the opportunity for higher order repairs in a competitive and time and resource constrained environment.
- Other outplacement initiatives are occurring locally in 3 BDE and at ASEME through the strategic partnership with BHP. This year's corps conference will explore how these discrete initiatives can be scaled to ensure our technical OR's and officers are able to develop the skills and experience necessary to support land materiel when unable to co-locate or communicate with industry.

The RAEME HOC Cell is motivated to enhance the job satisfaction and retention of our technical workforce. Enduring job satisfaction and retention of our Crafties and engineers cannot, nor should it, be achieved through separate isolated offerings; financial or otherwise. Job satisfaction and retention can be achieved by providing the opportunity for our people to apply, and be recognised for, bringing to bear **RAEME technical excellence**.

Arte' et Marte'



Message from Deputy Head of Corps – Air

LTCOL Rick Watling

Welcome back to another exciting year within the Royal Australian Electrical and Mechanical Engineers Corps! As your Deputy Head of Corps - Air, I continue to be proud of the amazing achievements across the Corps in support of Army through our technically proficient and extremely passionate people.

RAEME Aviation continues to be an exciting place to be, with significant Force Modernisation underway as we re-posture and re-organise towards the future requirements called out in the Defence Strategic Review. Across RAEME we continue to deliver technological prowess and excellence in maintenance, with genuine drive at all levels to design, maintain, inspect, modify, repair, test, recover, and safely dispose of Army's equipment. And now more than ever we will be tested and relied upon as a Corps to deliver with new and exciting platforms being delivered right now, and in our sights for the coming years.

In Army Aviation we have been embarking on a significant journey the last 18 months through the Army Aviation Capability Review. This Capability Review will ensure our workforce is structured, resourced and enabled to support our battlefield aviation programs into the future, with appropriate force dispositions in the right locations. Earlier this year the VCDF endorsed the recommendations made through the Capability Review and we are now in the implementation phase throughout the remainder of 2024 such that we can deliver Army Aviation effects through these new structures from CMC25.

We have already seen the relocation of the Headquarters 16th Aviation Brigade from Enoggera to Townsville. We are in the final preparatory stages for elements of the 1st Aviation Regiment to also relocate into Townsville from CMC25. Here, they will begin training and acceptance of the 1st AH-64E Apache Guardians into service, as we draw down ARH Tiger in Darwin over the coming years. We are also creating a new unit on the Army's Order of Battle from CMC25, the Aviation Support Battalion (ASB) in Townsville to better deliver through mass and density aviation maintenance, logistics and ground support rearming and refuelling effects to the 16th Aviation Brigade. The vision for the ASB's 5th Workshop Company (RAEME aviation maintenance sub-unit) sees all levels of maintenance through an integrated workforce, with deep RAEME specialisation and advanced technical mastery and proficiency opportunities.

Concurrently to the Capability Review, a Workforce Segment Review (WSR) has also been underway to generate positive outcomes for RAEME aviation members. The WSR has analysed in detail all aviation trades, to provide enhanced workforce propositions and remuneration commensurate with Army's contemporary expectations of each workforce segment. We are seeking improved opportunities for RAEME aeroskills technicians to remain on tools longer, gain additional skillsets and qualifications and offer deep expertise and specialisation as Aeroskills Technician Specialists in both ECN 411 and 412, all whilst enabling technical rank progression. We are seeking to de-link Subject 2 courses from skill grade progression and seeking improved remuneration commensurate with technical skill qualifications.

For Electrical and Mechanical Engineering Aviation Officers (EMEAO), through the WSR we are seeking a new hybridised career model, acknowledging the importance of and enabling

development of both operational and engineering technical expertise. We are seeking to embed junior engineers into CASG engineering positions earlier (LT) and seeking improved remuneration commensurate with technical qualifications and responsibility.

The WSR outcomes are expected to be presented to the Defence Force Remuneration Tribunal (DFRT) for approval in late 2024. Should these employee value proposition enhancements be approved at the DFRT, the HOC cell will seek to champion similar opportunities across RAEME ground trades.

With reinforcement and expansion of the CH-47F Chinook capability under project L4502-2, Initial Operating Capability (IOC) of the RQ-21 Integrator Uncrewed Aerial System through L129-3, Introduction Into Service (IIS) and IOC of the UH-60M Black Hawk platform via L4507-1 and the IIS of the AH-64E Apache through L4503, RAEME'ation have never been in greater demand or provided with such opportunity to upskill and work on sophisticated platforms. These are very challenging times ahead as we introduce new combat capable platforms, seek optimisation of our force structures through re-organisation and geographical disposition changes and posture towards future strategic threats facing Defence. We continue to face daily capacity versus demand mismatches across the entirety of RAEME through workforce shortages and increasingly demanding technological platforms being introduced. Remain vigilant in delivering excellence in every maintenance and engineering task you are given, honouring the proud heritage of RAEME.

As CO of RAMS my primary aim is delivery of class leading technical training in order to graduate operationally focused, competent and resilient RAEME aviation technicians and engineers, who are capable of conducting safe and effective aviation maintenance in support of the Army aviation capability and wider Defence. We have exciting times ahead as we not only transition to the new platforms, but transform our training systems to deliver the most advanced aviation maintenance training on our future platforms through incorporation of virtual, augmented and extended reality opportunities. We are constantly evolving our training methodologies and seek to leverage off our coalition partners to deliver a more agile training system. Again, this is not without challenges, but I know RAEME will continue to deliver excellence as we have always done.

I welcome the new members to RAEME who have commenced with us this year as we embark on exciting opportunities with introduction on these new capabilities. Please feel free to reach out to me or the HOC cell if you have ideas on how we can better deliver training outcomes, improve the experience for our RAEME technicians and engineers into the future or seek out opportunities you believe the HOC cell can assist with. We are your champions but need your great ideas voiced. I look forward to representing the Corps.

Arte et Marte



Message from Corps RSM

WO1 Jon Tynan

Welcome to 2024, the last year has flown past with myself not achieving all I had intended (I'm sure many feel the same). 2023 saw massive changes within the ADF and predominately Army; with restructures of Brigades, the raising of new ECNs (based around littoral movement) and new equipment.

The HOC Cell have made numerous changes to how we conduct ourselves; returning to light and heavy Corps Conferences, changing how Corps awards are determined and the introduction of a new skills based competition. We are also asking all Brigades to become involved in some of the higher profile activities of the Corps, as an example; we are taking the Corps conference to Townsville in 2024, this is the first time a conference has been held outside of a state capitol city. This allows members that have not previously been allowed to attend a chance to participate and assist in the conception of directions for the Corps.

A huge thank you to WO1 Ben Munro who has built the foundation for Vehicle Technicians to be able to take on a secondment with Matt Stone Racing at each race for the V8 Super Car season. The skill, knowledge and experience this provides our technicians is invaluable.

ASEME has seen many changes, from under subscribed Electrical based courses to Vehicle Technology Wing being oversubscribed. The changing of how we train and employ ECN's based off the Defence Force Remuneration Tribunal (DFRT) has provided many challenges, one of the important points I'd like to raise based off the review is the change to the Soldiers pay. The DFRT saw the CFN pay increase to align with similar civilian trades; also the removal of having to attend a 'Specialist Course' for a pay increase, as this was also rolled into the DFRT outcome and included in a soldiers pay once reaching PTE(P).

I hope the email I send every month is reaching all members of the Corps, as this provides updates on not only the Corps, ASEME but also Workforce and Training Group (W&TG); from a trade governance point of view. If anyone would like to see anything else included in the updates, please email myself and I will include as appropriate.

Rob Clarke (ARES) have worked tirelessly to improve the recognition process for those receiving awards or separating from the ADF. Please be patient and remember to submit any requests as early as possible. Dave Clarke is again editing and putting together the Craftsman Magazine, thank you so much for all you have done. Please get articles into Dave as soon as possible for the 2024 magazine.

Lastly, thank you to you as members of the Corps, your efforts during trying times (not all equipment is easily repaired), times of uncertainty (competing priorities) and your ability to always show off the Esprit de Corps (with Skill and Fighting) makes me very proud to be the Corps RSM.

Arte et Marte



Artificer Sergeant Major– Land

WO1 Andrew 'Jim' Beaman

G'day All

I am honoured to have been appointed as the inaugural ASM Land, the first WO1 Tier C appointment outside the Regimental stream. I enlisted as a 46th Class Vehicle Mechanic apprentice. My career has spanned postings across Army, JLC and JOC. My Tier B appointments have been across formation, group and service levels.

I would like to thank BRIG McLachlan (DG Landworthiness), and the many people who assisted, in getting this position

established. This position is a formal acknowledgement of the importance of Technical personnel and the capability they provide to Defence.

Prior to describing what this role is, I wish to confirm that ASM Land does not replace nor diminish the roles of ASM Army, RAEME Employment Category Advisor or the Corps RSM. Those roles remain extant and will continue to function in exactly the same manner.

ASM Land is responsible for the mentoring of Tier B technical appointments and shaping the professional development of technical NCO's, WO's and officers. ASM Land is the senior enlisted technical leader within the Land domain and is to provide nuanced advice on technical matters at the strategic level, interacting effectively within the Services, joint and inter-agency settings. ASM Land is to work with other Tier C appointments in support of RSM-A in implementing CA's strategic direction. ASM Land will also represent Head of Land Capability (HLC), DG Landworthiness and RSM-A at key events and strategic forums.

I am looking forward to the additional challenges that this role will present, and also for the opportunity it affords to promote the capabilities that our technical personnel provide across Defence to the Senior Leadership Group.



Master Artificer – ECN 146

WO1 Michael 'Mick' Nolan

2023 has been a challenging year, punctuated by a significant level of change across the organisation. Some could say that we are all suffering from 'change fatigue', of which I concur.

For RAEME it began early in the new year, with both an alignment and increase in base pay across several technical trades.

Concurrent to this was the deliberate delineation of trade skills taught at Initial Trade Training (ITT) affecting ECN 146 Weapon Technician (formerly Fitter Armament), ECN 235 Material Technician (formerly Metalsmith) and the new ECN 222 Marine Technician trades. Soon this was followed by the release of

the Defence Strategic Review (DSR), which set the agenda for an ambitious reform to Defence's posture and structure through to 2030.

The Review included specific directions to Defence with immediate effect, which for us operating primarily in the Land domain was the changes in Force Design and Force Structures. But regardless of the bigger muscle movements across both Defence and Army, one constant throughout has remained unchanged: ECN 146 technicians delivering maintenance effects, in both training and on operations.

Looking to next year, 2024 will likely not be any slower or less chaotic. Ultimately, as a key enabler to the Joint force you are obligated to continue your pursuit across technical, tactical, and cognitive domains. Use your Technical Support Network (TSN) to gain support and exploit opportunities to participate in the conduct of realistic training (such as Battle Damage Assessment and Repair) during exercises, increasing your level of proficiency. Your survival and those around you depend on it, so train like you go tomorrow.

In closing, to all those members that are posting, travel safe and I hope that the relocation with family goes well and as stress free as it can. And those who may be separating at years end, I thank you for your service and best of luck in your new endeavours.

Arte' et Marte'



Master Artificer – ECN 229

WO1 Marc Craigie

As 2023 draws to a close, I wanted to take the opportunity to write to you and thank you all for your continued support to the Army, to the Corps and most importantly to the trade.

As a trade, we continue to evolve and develop our skills both individually and collectively through in barracks 'business as usual' activities and within austere environments on exercise or on deployment. Our inputs to maintaining capability ensure that our Commanders have their equipment ready and safe for use at any time. I acknowledge that at times this has meant we have had to make personal sacrifices and for that, I thank you.

This article serves to provide you with some of my personal observations from 2023 and inform you of some excellent work that has been done and continues to be done by members of our trade.

Please read on and if you have any questions please reach out. Thanks!

Master Artificer visit to ASEME Jun 23

Over the period 19-21 Jun 23, the MAs centralised at ASEME and we were privileged to receive briefings from the HOC, BRIG Ben Slaughter, DHOC LTCOL Tim Soper and Corps RSM WO1 Jon Tynan. The visit included tours of the trade wings with key staff highlighting key points and issues currently in play. Of note, Vehicle Wing has ~ 250 trainees within the wing and forecasted growth to ~ 300 by the end of 2023.

So What? This number of trainees puts pressure on the training continuum and may see extensions due to training delay, which for the duration of the residential phase could be in the realm of 18 months for some trainees.

ASEME are working on courses of action to mitigate excessive training delay and units within major regions (Brisbane, Townsville and Darwin) will most likely be the beneficiaries.

EX DIAMOND STRIKE (DS) 23 and EX TALISMAN SABRE (TS) 23

In my role as ASM 7 BDE (7X) I deployed to Townsville Field Training Area (TFTA) to undertake EX DS 23 and EX TS 23. This is the first time that many of us have deployed on such a large activity particularly since COVID and it was pleasing to observe units operating in an austere environment and doing what we do best.

Maintaining equipment in the field environment in harsh conditions and at times in tactical situations; so a commander can execute a task or support a flanking call sign is where the rubber hits the road for our trade and more broadly the Corps. This is what differentiates Vehicle Technicians in Army from other services and civilian industry. I observed excellent work across all 7X units during these activities and I am sure that the same level of work/outputs was occurring across the other Brigades and Units.

Refit to fight continues and many units will be expecting equipment to be returned to an operational state as quickly as possible. There is an expectation that this can be done whilst units change their focus onto other tasks such as Ready Battle Group (RBG), High Risk Weather Season

(HRWS) and other regional tasks. There will be friction at times, as units identify what is the priority of effort so as a trade we need to demonstrate flexibility and be adaptable to change (often at short notice, with little direction).

Matt Stone Racing - GC 500

First established in 2022 by 20 REGT RAA ASM, WO1 Ben Munro a short secondment for RAEME Vehicle Technicians to Matt Stone Racing Team during the Supercars Championship has proven to be extremely successful. Most recently, Craftsmen Quentin Rix and Holly Trigg assisted the team during the Gold Coast 500 and from all reports, the experience was amazing. This initiative extends to the majority of race events in the Supercars Championship and there is opportunity for Vehicle Technicians within most regions to be selected to be involved.



CFN Quentin Rix from 7 CSSB at the GC 500

2023 PACIFIC GAMES

7 CSSB tradies are currently working hard in the Solomon Islands supporting the Royal Solomon Islands Police Force to get ready for the 2023 Pacific Games.

The team have done a great job to prepare for the deployment and are providing an excellent effect on the ground. Working on a wide variety of vehicles, with limited supply of parts, the team have utilised all of their skills and knowledge to repair the aging fleet. The 'Graveyard' of vehicles at the rear of the compound has provided a good source of reclaimed parts as well.

REFLECTION

My observations of our trade over a long period is that we are extremely capable and that we have an uncanny knack of being able to 'get it done'. I have come to realise that at times this comes at a cost, either individually or collectively and whilst it is concerning, it is at times largely unavoidable.



CFN Thomas Noble & Layla Williamson from 5 Avn Regt check the engine of Matt Stone Racing Camaro at the 2023 NTI Townsville 500



CFN Bradley Scheef – 7 CSSB working with RSIPF Veh Mechs

As individuals look after yourself first and foremost but be sure to look to your left and right and do a quick buddy check. Our people are our most important asset!

Please continue to be the best that you can be. Support your mates and support your chain of command.

Arte et Marte



Master Artificer – ECN 235

WO1 Keith Brown – Out going

Late last year, in 2022, I was an observer on the trial of an ultrasonic needle peen machine for stress relieving welds in critical materials. This was a very interesting trial based on a process that was developed by engineers in both Ukraine and Russia around 1972. It was used to reduce the effects of fatigue and enhance the corrosion resistance properties of ships and submarines.

This treatment is an advancement on the old shot peening and hammer peening that some of us used to conduct. This system allows for the peening force to be set for the material ensuring that force is controlled. The ultrasonic impact treatment can reduce any residual stresses, refine the grain growth, which is caused by the heat of the welding process, and produce grain size reduction, which leads to better fatigue strength. This process can be used to reduce the effects of fatigue in existing structures to allow a type of life extensions of bridges and other steel and aluminium structures.

I have provided advice on the qualifications of Material Technicians with regards to conducting repairs on armoured vehicles to CASG concerning OEM requests on military qualification. I also assisted in the review of the training continuum for reserve Material Technician tradesmen to align with the new Material Technician MAE.

Things of concern

RAEME needs to look at reviewing the Quenched and Tempered Steels Armour course. This course over the years has been added to as the armoured fleet has changed. Originally, the course was based on the GM welding repair course for ASLAV; overtime, light level PMV welding has been added to the course as well as the welding procedure for the Abram tank.

With the introduction of Boxer, SP Gun, IFV and the upgrade of the Abrams, it is necessary to confirm that the current course fits the future needs of Defence. Perhaps, the current course is suitable to be adapted to the new fleet. Alternatively, there may be need for this course be changed to follow different welding processes. Does Army need to look at introducing a flux core welding wire as used in the US on the Abrams fleet there?

With regards to the specialist welding training, is there a need for assessing currency and if so, how would it be done? In units with test pieces, which comes with the additional question of who would conduct the assessment, or would it be conducted back at ASEME under controlled conditions?

On a further note, Army used to train the Metalsmith CPLs in weld inspections IAW Australian Welding Standards (the old SUB4 CPL Metalsmith). Will this be a requirement moving forward with the conduct of repairs to the new armoured fleet, and if so, where should this skill/knowledge sit? Would it sit at the SGT level in the ARA Brigades. Or is this a specialist task, and if so, where would this qualification sit? It is important to note that contractors will not turn up to conflict zones to conduct inspections.

RAEME repair policy is to conduct repairs as far forward as possible. With the introduction of new equipment, CASG has to provide the EMEI's for both inspection and repair, and the RPS with

NSN parts. While the OEM would like Defence to send the equipment back to their location or somewhere safe so they can employ a workforce, Defence needs to learn how to conduct these repairs beforehand as they cannot learn during a conflict.

With nearly all of the Army's equipment painted in PUP, CASG need to provide direction on the safe removal of the paint prior to any welding repairs being conducted on equipment. For example, how far from the weld repair area does the paint have to be removed to prevent the heat from the welding process releasing isocyanates? Is it 150mm or is more necessary to be safe? Safe Work NSW Isocyanates Technical Factsheet also states that sanding of materials that contain isocyanates may also result in inhalation exposure from dust particles. Therefore, Defence requires a safe way to remove the paint, allowing the welding/heating of equipment and not sending every repair back to the OEM or JLU. Or does Defence not use PUP on training equipment that is only used in Australia, and PUP is only used on high readiness equipment or as required for future deployments. Happy to discuss this issue either in person or by email.

On a happier note, could you all welcome in the New Master Artificer ECN 235 WO1 Grant O'Leary to the role as I look forward to retiring from Defence and wishing you all the best wherever your career takes you.



WO1 Grant O'Leary – Incumbent 2024

I would first like to thank Warrant Officer Class One Keith Brown for the work that he has done during his appointment as the Master Artificer for ECN 235 over the last couple of years. There have been many challenges for ECN 235 with the Technical Workforce Review and the introduction of new armoured fleets like the Boxer and armoured B-vehicles. As I step into the role of the Master Artificer in 2024, I plan to continue the work that has been started while looking at the new challenges that our trade will face in the coming years. In my current role at DSCM-A I am the career manager for ECN 146 and 226. I plan to bring the ECN 235 back into my portfolio to help manage the trade within Defence and try and grow our members.

Armoured Fleet



With the introduction of the 8160 Combat Engineer Fleet and refreshment of the ABRAMS M1A1 to M1A2 SEPv3, material technicians will be required to conduct repairs and battlefield assessments in the field and home locations. Quenched/ Tempered steels and Special Alloy Maintenance techniques are the courses our Material Technicians need to conduct these repairs. One of the biggest challenges right now is tradesman maintaining their competence and currency in specialist welding techniques and procedures.

I will be working with CASG and ASEME to find solutions to ensure our material technicians remain competent and compliant with current and future regulations. This will ensure our technical workforce is ready and able to carry out repairs to the Armoured Fleet in the field and barracks environments when required.

Technical Workforce Review

What has this changed for the current ECN235? IAW with the MAE skills and proficiencies there are only minor updates. This will evolve as new skills are required and new equipment is introduced into the Defence Force.

Has your role changed? The short answer is no. All the tasks you were able to complete before the change you can still perform now. As time goes on, other roles may be added. These may include:

- Manufacture and repair components by employing advanced lathe skills.
- Manufacture and repair components using a milling machine.
- Program, write and set up CNC for manufacturing. and
- Conduct CNC operations to manufacture and repair components tasks.

These will only be used in specialized units that have the equipment to perform these tasks. In time we may see this equipment in other units across the Defence Force.

In closing I look forward to the challenges our trade is going to face in the coming years. We may be a small trade group within defence; however, we hold a niche set of skills that ensures Defence equipment remains functional and ready for the fight.



Master Artificer – ECN 411

WO1 Peter Chambers

ECN 411 and ECN 412 Technicians Serving the Distinction

Saying Farewell

We say farewell to the MRH-90 Taipan (MRH) operated by Defence to support future capabilities. The MRH-90 Taipan has provided outstanding service to Defence and our community over many years. The extensive work our ECN 411 and ECN 412 technicians have provided to ensure capability success requires recognition for their dedication to task, resilience through diversity, a no fail mentality, and an ever willingness to improve the capability which saw us lead the world. This commitment to the CORPS and Army Aviation sees the future capability well supported and motivated to succeed.

The ECN 411 and ECN 412 Technician



ECN 411 is a Technician Aircraft (AE) highly trained to maintain airframes and engines, whilst the ECN 412 is a Technician Avionics (AV) highly trained in avionics aircraft systems with both supporting a diverse range of operating weapon systems across Army Aviation. The establishment of the Aeroskills Technician Specialist (ATS) trade sees a technician dual trained (AE and AV) and



licenced to conduct maintenance on authorised aircraft. This capability provides trade stability in the Regiments, a greater level of expertise across trades, and provides efficient mentoring across both ECNs. Both ECNs are continually being reviewed to ensure efficient maintenance and training outcomes are maximised. The Aircrew Technician (AT-CH-47F Chinook) is a highly skilled technician and loadmaster, providing essential maintenance and aircrew support to achieve mission success.

6th Aviation Regiment (Sydney)

In 2019, MRH commenced operations in Sydney to provide rotary wing capability to Special Operations Command (SOCOMD) as S-70A-9 Black Hawk were retired from service after 37 years. Maintenance of these aircraft was performed by ECN 411 and 412 technicians under an Airbus Australia Pacific maintenance organisation. Over the five

years of maintenance the Technicians provided an extremely high serviceability rate to which the maintenance organisation was awarded best maintenance organisation within the Airbus Asia Pacific region. Over the following years, MRH deployed to numerous locations within Australia providing rotary wing capability for short notice tasking in support of SOCOMD and Defence Assistance to the Civilian Community (DACC).

New Capability – UH-60M Black Hawk



In 2023 Government announced the rapid introduction of the UH-60M Black Hawk to replace the MRH. The first tranche of ECN 411 and 412 maintainers were sent to the Sikorsky Training Academy (STA) in the United States at the start of 2023 to undertake the UH-60M Maintainers Type Course in preparation for the first C-17A delivery of two UH-60M. These newly trained technicians were invaluable in ensuring the unit was ready to conduct operational maintenance post acceptance checks by project LAND 4507-1 and the US Government contractors.

The first flight was conducted on 26th September, with sustained flying operations continuing. The vast majority of the flying hours have been dedicated to aircrew qualification, which would not have been possible without the hard work and dedication of the maintenance, logistic and support staff at the 6th Avn Regt.

Rotary Wing Aircraft Maintenance School (RAMS), Army Aviation Training Centre, Oakey Qld



RAMS' focus has been on qualifying IETs on both the ARH and CH-47F along with transitioning a large number of qualified maintainers onto CH-47F and UH-60M. UH-60M training has already transitioned 40 aircraft technicians, 32 avionics technicians, three specialists and 35 have completed the System Managers course. Looking to the future, RAMS will receive a number of advanced training devices including the Black Hawk Maintenance Trainer, which is a non-serviceable full sized aircraft that is software driven. We are able to modify it so it is operable from a computer and the instructor has the ability to plug in specific faults, which allows trainees to develop their fault finding skills. The training device contains 259 different faults for the instructors to modify. Additionally, RAMS will receive a cockpit and cabin from a real aircraft that supports navigation, communication and electrical systems. And finally, the Maintenance Blended Reconfigurable Aviation Trainer or MBRAT utilises multiple LCD screens that acts as a simulator utilising standard aircraft control panels enabling realistic testing and trouble shooting.

Furthermore, there is a proof of concept to develop a virtual maintenance trainer. A digital twin, which is a 3D scanned version of the aircraft. This virtual maintenance trainer assists

with virtual maintenance tasks, location testing, and simple task training not to mention the value it adds to a classroom for the instructor. A snapshot of this proof of concept is shown above.

New Training Devices to support UH-60M Black Hawk Technical Training





UH-60M Black Hawk technical training will utilise the Black Hawk Maintenance Trainer, Maintenance Blended Reconfigurable Aviation Trainer, and Black Hawk Avionics Trainer which are being acquired through the project LAND 4507.

5th Aviation Regiment (Townsville)

The Regiment ECN 411 and 412 technicians saw a progressive capability shift in 2023 with the transitioning of MRH and the growth of the CH-47F Chinook maintenance workforce. The outstanding support provided by the technicians enables Defence to maintain continued support to DACC when called on, whilst maintaining routine tasking.

Support to QLD Flood Emergency - TU PEGASUS



Queensland Emergency Services requested Commonwealth assistance from 18 December 2023 to provide a Rotary Wing Aviation effect to support the QLD Flood Emergency Response. 5th Aviation Regiment was requested and provided aviation support to deliver an immediate safety of life response and support the movement of SES personnel, luggage and equipment from Townsville to Cairns. The ECN 411 and 412 technicians maintained critical maintenance support activities to ensure continued flying operations in support of the community.

1st Aviation Regiment (Darwin)

The unit continues to operate the ARH Tiger as transition to the AH-64E Apache has been initiated, which will enhance the war fighting effect and joint force integration in the future. The continued maintenance support by the technicians on ARH Tigers in Darwin continues to achieve sustained operations by air, sea and land. The ARH is a complex attack helicopter with integrated weapon systems that that can be configured by maintenance teams to achieve essential reconnaissance and fire power to support of the northern borders, Defence and the community.





161 Squadron Technical Support Troop (SQN TST)

- In June - August 2023, the members of 161 SQN TST supported the Air Self Deploy of six ARH Tigers across the country from Darwin to Townsville to participate in Exercise Talisman Sabre 23 (EX TS23). This transit included splitting the Road Self Deploy IOT conduct the recovery of an aircraft from Mt Isa to RAAF Townsville.

The exercise involved 24-hour operations by day and night working with a range of international allies. The technicians consistently provided a high aircraft serviceability rate, conducted multiple simulated aircraft recoveries and a physical aircraft recovery from the main taxiway of Townsville Airport post

heavy landing. The efforts of the members of 161 SQN TST ensured that aircraft were available for all the operational training requirements to be met.

While on EX TS23, the squadron was re-tasked to conduct a search and rescue mission on short notice. This saw the successful planning, preparation and deployment of two ARH Tigers and an FRT to Proserpine to conduct and support the search and rescue operations.

Overall, the technicians of 161 SQN TST once again punched above their weight during 2023 ensuring that the ARH aviation capability remains ready to fight.



162 Squadron Technical Support Troop

- Indo Pacific Endeavour (IPE) 23 - On the 19th August 2023, the 1st Aviation Regiment deployed 162 SQN to the Philippines in support of IPE 23. As part of the deployed contingent, the RAEME element deployed three FRT's. For many of the members involved it was their first time overseas with the Army.

The preparation in readying four Aircraft to deploy overseas was a complex task with many considerations including lead up training,

pre-deployment admin, medicals, preparation of tooling, Servicing & Test Equipment, spares and aircraft preparation for C-17A loading and transportation (removal of the main rotor blades and defueling).

The deployment to Clark Air Base was conducted over three and half weeks, which was a former U.S Military base. For reference, Clark Air Base is situated in Angeles about 100 km north of the capital Manila. In total, the inflight took five days with five separate C-17A flights. Once in Country, the first priority of the team was to rebuild the four aircraft and to establish the work accommodation, which was made up of four 40ft containers.

It didn't take the team long to settle into their shift patterns with one FRT working days and the other two working afternoons/evenings. The split shifts were to accommodate the daytime flying window and the requirement to conduct scheduled and unscheduled maintenance in the evenings.

Overall, the deployment was a huge success with no dropped sorties due to maintenance even though two unserviceable aircraft provided challengers. The maintenance team is to be commended for adapting to the local conditions quickly and making do with what limited resources we had available on the ground.

New Capability - AH-64E APACHE Guardian



Under project LAND 4503 Army Aviation will see Apaches delivered to Australia in the coming years. To support future maintenance activities ECNs 411 and 412 technicians have been attached overseas to conduct initial aircraft trade training which will be further strengthened by 161 SQN TST and 162 SQN TST technicians. As Defence draws down ARH and the Unit relocates to Townsville in the coming years, the Apache will see maintenance training devices introduced to support an in-country technical training solution.

Proposed AH-64E Maintenance Training Devices

CASG under project LAND 4503 (ARH replacement) are currently working to procure three separate maintenance training devices that will assist in the training of RAEME personnel on the AH-64E Apache. These maintenance trainers are a step change in the way training will be delivered to trainees and will provide industry best standards to ensure training is conducted in an immersive and timely manner. These three training devices are all being developed and manufactured by LSI Inc which are located in Florida U.S.A. The Apache training will be conducted at RAMS.

Virtual Maintenance Trainer – The Virtual Maintenance Trainer is a set of highly polished programs (with some supporting hardware) that provides trainees and instructors with a software package that enables a digital training environment. The aircraft and associated systems are represented in a virtual sandbox, where all manner of items, components and systems can be investigated, removed and installed, and maintenance procedures can be rehearsed, examined and assessed.

L-7AY AH-64E Maintenance Trainer – The L7 is a sophisticated multiplex trainer for maintenance procedures with specific focus on Avionics and Weapon Electrical Systems. The training device, via an operating station, can be used to conduct 326 fault isolation procedures, 97 maintenance



operational checks and over 200 removal and installation tasks. The L7 will be constructed from a recovered UK WAH-64E Mark I Apache aircraft, that has been sourced from the Ministry of Defence. This acquisition and production process is a first for Army Aviation maintenance training devices.

Ground Support Training Device (GSTD) – The GSTD maintenance and weapons trainer is based on a second recovered aircraft from the UK that is being procured by CASG. The GSTD will be a uniquely modified training device, developed by LSI in conjunction with the Army, which will enable over 240 Removal and Installation procedures with a focus on fuel, hydraulic, drivetrain, flight controls, environment control systems, landing gear and weapon systems. The GSTD also incorporates gun parts training and engine removal capabilities. This device has a focus on engine/airframe systems and will also provide the ability to conduct move and secure training for maintenance and ground crew aircraft support personnel.

20 Regiment (Brisbane)

The Air Workshops (AWKSP) at 20 Regiment is relatively small containing 22 ECN 411 and 412 technicians ranging in ranks from CFN to WO1. Typically, a team of 6 - 7 ECN 411 and 412 technicians can support a troop of Un-Crewed Aerial Systems (UAS) operating 24/7 in austere conditions and cover all maintenance and servicing requirements with limited external assistance. The role of a ECN 411 and 412 technicians is interchangeable at 20 Regt and all receive the same maintenance authorisations as UAS technicians.

During 2023, the AWKSP produced a record for domestic Rate of Effort last year operating Shadow 200 (SH200), which is significant considering SH200 is in its penultimate year of service. AWKSP supported SH200 on exercise or deployment for 107 days during 2023 and participated in 3 BDE exercise CALFX, EX TS23, SoARTY ab-initio training and culminated with a deployment on OP RESOLUTE in December 2023.



New Capability - RQ-21 Integrator UAS (RQ-21) – The Integrator and maintenance tent at TFTA during EX TS23)

In addition to supporting SH200, 20 Regiment began supporting the IIS of RQ-21 Integrator UAS under LAND129-3. This consisted of training an additional 12 technicians from AWKSP who attended RQ-21 Maintenance courses IOT qualify as RQ-21 maintainers during 2023. AWKSP provided aviation maintenance support on two RQ-21 exercises during 2023, to facilitate LAND129-3 Operational Testing and Evaluation. During these exercises, significant advances to the RQ-21 system were achieved including

Australia's first night operation of RQ-21 and the completion of 35 missions, including over 100 dynamic in-flight re-tasking.

2024 is set to be the busiest year for AWKSP with continued support to OP Resolute for SH200 and the reception of RQ-21 systems during Q1 2024. Consistent tasks and exercises have been planned domestically to enable the RQ-21 system to achieve Initial Operational Capability, which will transfer responsibility of the online UAS capability to RQ-21 and allow SH200 to begin withdrawal from service.

Other major tasks required by the AWKSP will be creating a Maintenance Control Section to introduce CAMM2 system to 20 Regiment, training for LAND 121 and PMV driver's courses, and other capability enhancers required for ECN 411 and 412 to support Army's UAS capability.



OP Resolute – ECN 411 and 412 technicians building a landing point for a barge to allow support



WO2 Rhys Simpson and CFN Karl Wallis conducting a pre-flight on a SH200 Aerial Vehicle



RQ launch – During RQ-21 Integrator Maintenance course LCPL Timothy Cox conducting Crew Chief duties launching an RQ-21 AV



Master Artificer – ECN 418

WO1 Sean Roberts

Well what a year 2023 has been, both for squeezing as much as possible and the amount of change, it certainly proves the adage “change is the only constant”.

So what has happened in Army, outcomes of the Technical Workforce Review were implemented and we are now Energy Technicians, Defence Strategic Review outcomes have started to be implemented and will continue for the next few years, along with a myriad of exercises and support to international engagements and operation which has probably made you somewhat busy.

In the trade, the new training continuum for Energy Technician’s has been implemented. The new generator fleet under L8140 has had some delays, this is mainly to ensure the capability is the best it can be information can be found at [Pages - LAND8140 - Deployable Force Infrastructure](#). Also I have seen a concept demonstrator of the Defence Adaptive Smart Grid (DASG), which better monitors and manages loads with multiple power inputs. Lastly the Robotic and Autonomous Systems Implementation & Coordination Office (RICO) are exploring new and emerging technologies to meet the demands of future, there is some really interesting information found at [Power and Energy | Australian Army Research Centre \(AARC\)](#).

Finally I have created an [Energy Technician ECN 418 - Community of Practice](#) on Vera which provides an avenue to share information and learning from each other. If you have not been added, please follow the link above and contribute to the trade. As the last thing for 2023 from me, I challenge you with following for the next year, improve your technical mastery by pick on area in your trade increase your knowledge on, improve a process in your workshop which makes maintenance downtime shorter, make work “Fun” and “Be Positive”.

Arte et Marte



Master Artificer – ECN 421

WO1 Benjamin Munro

The past 12 months have been an exciting period for the Master Artificers, myself included. The role of Master Artificer is still relatively new, so setting goals to achieve whilst managing our regular job has been challenging – but extremely rewarding.

What we have done:

Master Artificer meeting – This was our first opportunity to all meet each other and set the course for what we hope to achieve during our tenure. Head of Corps also discussed his expectations of us as Master Artificers. This was our first opportunity to visit the

Wings at ASEME and meet the trainees and instructors.

Promotion course engagement – We have engaged with a number of promotion courses throughout the year, primarily in the form of panel sessions. In each instance we have been thoroughly impressed by the quality of trainees on these courses who ask relevant and insightful questions. I would like to thank the staff and trainees for their participation and look forward to continuing this engagement throughout the next year.

Corps Conference (Light) – It was inspiring to attend the Corps Conference (light) later in the year and to participate in discussions focussed on the future of the corps, as framed by the DSR. Scoping discussions were held to determine discussion topics for next year's Corps Conference and I look forward to attending that once further information is disseminated.

ECN 421 engagement – I received a couple of direct questions from fellow boffins, centred on various topics. In each instance the boffin that initiated the question was already on the right track with their query, but was just fleshing out their thoughts. This was encouraging, and inspiring to see the passion that boffins at various ranks still hold for their trade.

Some common themes have been observed by the Master Artificer during our various engagements:

Incorrect, or lack of accurate, information – Disappointingly, a number of tradies we speak to remark that they are not being kept informed of the latest developments within the corps. More worryingly, some are getting incorrect information through their technical chain of command. I encourage you to seek information through your Technical Support Network, particularly the monthly Corps RSM email. If you are in a position responsible for distributing information, please ensure you do so. Further, please ensure the information you distribute is accurate and reflects policy as it is written, not your interpretation.

ECN 421 future direction – Unsurprisingly, I have fielded a number of queries regarding the future of ECN 421; including from a Weapons Technician! I can assure you that the boffin is here to stay. There are a number of platforms in the acquisition pipeline that will require ECN 421s to maintain, including; NASAM, HIMARS, ECM, L400. Discussions with the project offices responsible, have highlighted that boffins will continue to be required to maintain these items, and not simply “tag and bag.” This was reinforced during the Corps Conference (Light) where it was noted that all trades, including ECN 421, will be required to conduct maintenance as far forward as possible, in austere conditions, with limited support – including reduced OEM support.

Next year is likely to be more of the same. Few of us are expected to have “white-space” in our calendars as we continue to do more with less. Crafties are a resourceful and adaptable commodity though, and we will continue to achieve the outcomes required of us.

As always, I remain available to answer any of your questions related to the trade, and am willing to act as your voice in the room should the need arise.

Arte et Marte



Message from SO2 Corps

MAJ Steve Howells

Greeting Spanners, Firstly, as always thanks to all that have provided articles for this edition of The Craftsman, it is great to see so many quality articles. Again, a huge thanks to the Editor, WO1 Dave Clarke, he has completed a fantastic job in collecting articles and preparing them for print.

Also, I wish to thank other staff within the HOC Cell. SGT Rob Clarke has performed outstandingly trying to keep on top of all the admin for the cell. The Recognition of Service (and other) Certificates just keep coming, on top of that the Corps shop has started to generate interest and Rob manages the picking, packing and dispatch of these items. Rob manages this usually with one or two days a week, being busy in his other time, starting up his own business.

WO2 Dan Foyel has been busy rewriting Corps Instructions, completing a majority of the Admin for last year's Corps Conf and other tasks. Thanks for your efforts Dan, keep up the great work.

I'm in the process of handing over the SO2 Corps role, MAJ Craig Chatterton will take over (hopefully) from 01 Jul 24. Thanks for volunteering to take on the job Craig, I wish you all the best in the role. As I step down as the SO2, thanks to everyone that has supported and assisted me in the role, there have been too many for me to thank individually, but you know who you are, thanks.

I won't be disappearing completely (my CRA has been extended to 30 Jun 25), I will continue in the HOC cell as Treasurer for Corps funds and Manager for the Corps shop. So if you have any ideas for Corps merchandise drop me a line.

If you need anything from the HOC cell it is best to send your request to the group email address 'raeme.hoccell@defence.gov.au' rather than the individual, we all monitor the group box. Also please try to give us as much time as possible to action things, particularly certificates, they are in high demand and it takes time to have them printed, signed by the HOC then dispatched.

I hope you all have a great 2024 and think about writing about all those fantastic things you're doing, taking a couple of photos and send them to us for the 2024 edition of the Craftsman magazine. We accept articles at any time, no need to wait for us to call for articles.

Arte' et Marte'



Message from the Editor

WO1 Dave Clarke

Welcome to the 2023 edition of The RAEME Craftsman. As I've said previously, I look at The Craftsman as a time capsule to record and save the Corps history on a yearly basis. So, everyone that contributed to this year's Craftsman will have a record of their time in the Corps saved for posterity.

As usual, the articles were slow to start. However, I was overwhelmed with articles in the end and we have managed to amass a fantastic variety of articles, with articles that should appeal to everyone.

As I say every year, my favourite part about being editor, is that it gives me the opportunity to read the articles first. It is very interesting to read what is happening out in the Units and the direction that Army is heading. This year's edition has an introduction to the new Tier C WO1 ASM –Land position; professional development expectations and opportunities for our Technical Workforce; and an update on the Technical Workforce Review (TWR).

We also have a number of interesting articles about the latest on what's happening in both the Air & Ground Space. Most of these articles relate to the new equipment that is being Introduced Into Service (IIS) over the next couple of years; and, how RAEME as a Corps will have to deal with the challenges associated with supporting it. We have a couple of very interesting articles on member's perspectives of postings to Kapooka as a Recruit Instructor by CPL Jade Numans; and an ASMs perspective of what to expect when you get there by WO2 Jamie Harwood. There's even an article from a reserve Recovery Technician from 2FSB who jumped at the opportunity to participate in a recovery training weekend conducted by 4CSSB at Puckapunyal.

I've included the speech for the Leslie & Payne memorial that was dedicated to these two members at the site of the tragedy in 2023. It's a very fitting memorial and all of the people that made it a reality should be very proud of their efforts! It is becoming more and more evident that a lot of people are struggling mentally these days, be it from operational service, tragedies as mentioned above or just day to day work/life struggles. As such, I asked WO2 Cheyne Truelove to write an article on Mental Health. Cheyne, being Cheyne, he wrote a fantastic article aimed at RAEME members called 'Maintenance Support Plan for Mental Health'. As a Corps, we pride ourselves on our 'Esprit de Corps' so this is a timely reminder to check in on your mates.

The HOC cell and Corps Master Artificers have been busy doing their best to support the members of the Corps, one of their initiatives is to have members embedded with the Matt Stone Racing Team at each round of the Supercar races; there are numerous mentions of this in the magazine. There are also a couple of very interesting articles written by serving and ex-serving members on their recent experiences of their time in Antarctica.

The Operations articles this year all relate to past operations, we look back at Op Solace (Somalia) 30 years on and the reunion that was held in 2023. There is an article about two members that served in Timor Leste' going back and taking a RAEME mate with them, they visited old workshop sites and reflect on the differences 20 years on. There is also a short story about A/B Squadron 3rd Cavalry Regiment in Vietnam.

The Unit Jottings were also well supported this year, although we are still struggling for articles from aviation units. This is disappointing, as I read the 'Spanner News' and see that there are articles from aviation units in it regularly! Can I ask if you are submitting articles for the 'Spanner News' to BRIG Ross Grant (Rtd) that you also send it to the group email address 'raeme.hoccell@defence.gov.au' for inclusion in the Craftsman? This applies to all of your submissions.

I would like to congratulate all of those members of the Corps that received awards throughout the year. There is an article on SO2 Corps MAJ Stephen Howells receiving his 3rd Federation Star for 50 years' service. Unfortunately, I only received a couple of photos of our very worthy Corps Awards recipients. Can I ask that when members are presented Corps Awards, that photos are sent to the RAEME HOC Cell for inclusion in the magazine?

This also goes for any other awards that our members' receive. Unfortunately, I've seen numerous posts on Facebook, in the Army Newspaper and in Association Newsletters this year of RAEME members receiving awards, yet nothing is being forwarded to HOC Cell to allow us to recognise these achievements in The Corps Magazine. It doesn't have to be war and peace, just a paragraph in a word doc and some photos with captions.

Each year I say, the worst part of my job as editor is compiling the list of members that have passed. Throughout the year we receive a number of emails regarding members that have passed and we keep an eye on the RAEME Facebook pages and Association Newsletters. Unfortunately, the details provided varies greatly and can be light on for detail. Therefore, I keep the details in the Vale' notices to just the members name and the month they passed. There were a couple of article submitted for the passing of members of the Corps; COL Lindsay Horner (Rtd) & Bob Service. Bob was the subject of an article in the 2015 Craftsman where he was identified as the only RAEME member at the Battle of Long Tan.

Can I ask that if you are providing articles for the 2024 Craftsman, that you submit your articles with the photos in them. However, we also need you to send the photos separate to the article, labelled as you want them to appear. If you just send photos that's fine, but please provide some sort of explanation of why/where the photo was taken and who is in it to give them context.

Unfortunately, due to financial constraints the number of hardcopies of the magazine being printed are being reduced. However, all editions of the RAEME Craftsman can be accessed in electronic format on the RAEME website under publications and on the RAEME Association webpage at: <https://raeme.org.au/index.php/publications/raeme-craftman-mag>. Over the past couple of years, the electronic version of the RAEME Craftsman has been available online months before the hardcopies have been printed.

I hope you enjoy the 2023 edition of the RAEME Craftsman as much as I've enjoyed putting it together.

Arte' et Marte'

ARTICLES

Rebuilding the Intellectual Edge of Army's Technical Workforce

LTCOL Brendan Robinson

'Defence Engineering and Senior Technician Recognition Agreement (DESTRA) for Army'

"Much like the Ryan Review's goal to improve decision-making superiority in the Army through investment in professional military education and professional discussion portals like The Cove, Army should consider a similar investment in the technical and intellectual superiority of its technical workforce."

– With Skill and Fighting

In the context of rapidly advancing technology and the insatiable need for STEM professionals to deliver and maintain it in military service, many Australian military commentators[1] have raised concerns about the declining skillset of the Australian Defence Force engineering and technical workforce [2].

Neil Greet suggests the decline began in the late 1980s when privatisation and outsourcing came into vogue [3] affecting both the military and the Australian Public Service. Most recently, Brigadier Mick Scott wrote about the "spiral of capability erosion" affecting Army's civil engineers. His options to remediate it for engineers of the Royal Australian Engineers (RAE) included development of a career model, ongoing education and training, and greater opportunity to practice professionally. Captain James McLean echoed similar recommendations for Royal Australian Electrical and Mechanical Engineers (RAEME) land engineers.

Fundamentally, these concerns reflect how an organisation perceives and values its professionals. [4] Then Chief of Army, Lieutenant General Rick Burr, acknowledged this value in his 2020 Army in Motion – Command Statement:

"Our people understand their context and exercise sound judgement. We do the right thing. We train and operate in ways that are safe, secure and environmentally responsible. We learn and adapt, and uphold our professional obligations to deliver what the nation expects. Ethical leadership ties this all together and enables our teams to succeed."

For all the concerns raised above, reversing the skillset decline in Army's Professional Technical Workforce is not beyond us – but it depends as much on the **individual** to practice their profession as it does on the organisation to support them. From an **organisation** perspective, a number of developments have occurred or are underway to address some of these concerns. These include:

- Army participation in the Defence Engineering and Senior Technician Recognition Agreement (DESTRA). This agreement funds Engineers Australia membership and credentialing of eligible [5] personnel into both Leadership and Management and Technical Areas of Practice (AoP) [6] and provides access to continuing professional development (CPD) activities.
- Development of a career management model for RAEME land engineering officers.
- Revision of engineer recruitment targets at the Australian Defence Force Academy.
- The provision of Army and Defence infrastructure project examples and visiting lecturers for civil engineering subjects at the Australian Defence Force Academy.

- Use of the Senior Technical Officer review component in the new [ADF joint performance appraisal report](#) (from 2024) to comment on the technical skills and guide the technical development of RAEME engineering officers.
- An Army Technical Workforce program which includes an online seminar series.

To be successful, there is an obligation on the individual to:

- Take ownership of their career and plan this with assistance from their career manager and mentors.
- Join Engineers Australia as a member through DESTRA and seek professional credentialing once eligible.
- Invest in and participate in [continuous professional development \(CPD\) activities](#), including those provided by [Engineers Australia](#), and short technical courses and post-graduate courses provided by [UNSW@ADFA](#) in Canberra.
- Share and obtain technical knowledge through [mentoring](#), writing articles for the [Australian Army Journal](#), [The Cove](#), or Corps Journals, or presenting at work or industry seminars.
- Practice their profession in their unit or headquarters. Army's [Military Risk Management](#) approach coupled with the Land Materiel Safety Manual and [Land Materiel Maintenance SOPs](#) enable this.
- Find a [mentor](#) or use Army's [Technical Support Network](#) for technical assistance.
- Look for career opportunities in [RICO](#), [Land Capability Division](#), Capability Sustainment & Acquisition Group and Capital Facilities and Infrastructure Branch within Security & Estate Group to deepen their technical skills.

Developing the necessary skills and experience of our ADF professional technical workforce will take time and personal investment; but it is achievable. To those that are interested and invested, the goal of this article is to offer a way forward.

Over the coming months, *The Cove* will promote complementary Army-focussed technical 'PME' delivered via the Defence Protected Network to those interested. The first session will outline what DESTRA is and how to participate. Subsequent sessions on Innovation and the Land Materiel Safety Manual, Special Operations Advanced Manufacturing Cell, and the 3rd Brigade's Industry Secondment program are planned.

An invitation to present is extended to those officers, non-commissioned officers, and soldiers who wish to pass on their experience and knowledge via this forum.

"... the responsibility for professional development between periods in formal programs rests with the individual officer. This is inherent in the nature of the military officer's calling. It is inherent because the body of knowledge which constitutes the art and science of war is not only broad and deep but is also dynamic."

– MAJ Paul Van Ripper USMC, 1982 with thanks to [@WarIntheFuture](#) for the [quote](#)



Statement of Expectation for Army's Technical Workforce Professional Development

Brigadier Damien McLachlan, CSC and bar
Director General Landworthiness

"Our people understand their context and exercise sound judgement. We do the right thing. We train and operate in ways that are safe, secure and environmentally responsible. We learn and adapt, and uphold our professional obligations to deliver what the nation expects. Ethical leadership ties this all together and enables our teams to succeed."

CA's [Army in Motion Command Statement](#), 2020.

Engineers, Technicians and Technical Corps personnel have a dual obligation: to uphold Army requirements; and demonstrate technical competence. Professional development of the technical workforce is fundamental to this obligation and supports the acquisition, development and sustainability of the land capability. CA's Statement articulates an expectation of technical workforce gaining and maintaining Chartered status. The Defence Engineering and Senior Technician Recognition Agreement ([DESTRA](#)) between Defence and Engineers Australia (EA) enables achievement of this outcome.

Professional Expectations Membership of EA

DESTRA enables Army's technical workforce to become members of EA and access their technical learning and professional education programs. To apply submit an [AF126](#) to [Army.DESTRA@defence.gov.au](#). All qualified professional engineers and technical personnel are eligible for membership of EA.

CPD Opportunities

CPD is any sort of training or learning that helps to expand your knowledge, maintain your technical skills and progress your engineering career.

Extend your knowledge through Continual Professional Development (CPD). Army's policy for the continuous professional development of its technical workforce is found in the Army Standing Instruction Personnel, Part 6, Chapter 7 - [ASI](#); and is an extension of EA's CPD policy, outlined [here](#). You need to complete at least 150 hours of professional development activities every three years inclusive of 50 hours in your area of practice, 10 hours towards risk management, 15 hours in business and management skills and 75 hours in activities relevant to your career interests. Commanders of Army technical staff are expected to release members for CPD where appropriate.

Defence CDP Courses. Long- term schooling, Land Capability Division [courses](#), One Defence Capability [courses](#) and any Defence Engineering or Technical course you complete.

Army CPD Seminar Program: See Pages - [Army Tech Workforce PD Pgm](#).

EA CPD activities. EA-hosted CPD opportunities and activities are listed [here](#). Army sponsors a number of these courses for DESTRA participants where funding allows.

Contribute to your profession. Regardless of your rank, share your technical experience and knowledge by mentoring your subordinates, writing articles or presenting CPD seminars. Publishing options include the [Army Journal](#), [Land Power Forum](#), [The Cove](#) and your Corps journal.

Attain EA Chartered Status. Under DESTRA and IAW the ASI, Army funds the assessment of technical personnel for EA Chartered status. To apply submit form [AF126](#) to Army.DESTRA@defence.gov.au. Eligible personnel include:

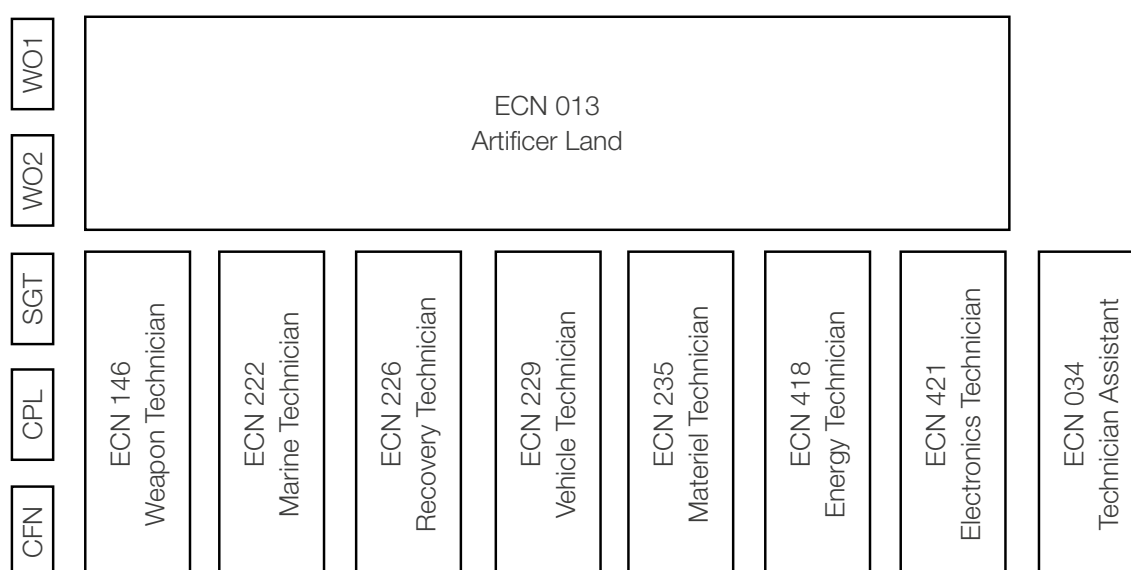
- MAJ and above engineers, Technical Officers and other specialists (ATOs)
- Senior Technicians (WO1 and WO2)

In closing, Army requires a sufficient qualified, competent and experienced engineering and technical workforce to sustain the Joint Land Force now and into the future. It is up to you as professionals to make the most of the development opportunities you have.

Technical Workforce Review update

Since the last article in edition 73³, the Defence Force Remuneration Tribunal (DFRT) conducted an inspection of our Corps capabilities at the Army School of Electrical and Mechanical Engineering (ASEME) on the 7th of December 22. The DFRT hearing for *Matter 9 of 2022 Royal Australian Electrical and Mechanical Engineers – Ground Trades* was conducted at the Mantra Albury Hotel on the 8th of December 2022. All submissions were approved in the DFRT Determination and Decision⁴.

Implementation of Employment Category changes commenced 11 May 2023. The first actions implemented were the changes to the new RAEME Ground Trades structure and Employment Category names as follows:



- **Artificer Land.** Renamed the ECN 013 Artificer Ground category to **Artificer Land** with six skill grades. Amended the structure to incorporate ECN 006 Artificer Mechanical and ECN 007 Artificer Electronic employment categories; and the Mechanic Recovery Warrant Officer skill grades.

ECN 013
Artificer Land

ARes	Rank	ARA	
013-1 PG 5	WO2	013-2 PG 6	
013-3A	WO1	013-4A PG 6	Tier A
N/A	WO1	013-4B PG 7	Tier B
N/A	WO1	013-4C PG 8	Tier C

³ RAEME Craftsman Edition 73 <https://raeme.org.au/index.php/publications/raeme-craftman-mag/download-file?path=RAEME%2BCRAFTSMAN%2BIssue%2B73.pdf>

⁴ Royal Australian Electrical and Mechanical (RAEME) Ground Trades | Defence Force Remuneration Tribunal (dfrt.gov.au) <https://www.dftr.gov.au/matters/royal-australian-electrical-and-mechanical-raeme-ground-trades>

- **Weapon Technician.** Renamed the ECN 146 Fitter Armament category to **Weapon Technician** and amended the structure to reduce the number of skill grades from nine to four. Note: -T (Trainee) skill grade is not counted in any totals for all ECNs.
- Established the ECN 222 **Marine Technician** category consisting of four skill grades.
- **Recovery Technician.** Renamed the ECN 226 Mechanic Recovery category to **Recovery Technician** and amended the structure to reduce the number of skill grades from thirteen to five, including the removal of the Warrant Officer skill grades.
- **Vehicle Technician.** Renamed the ECN 229 Mechanic Vehicle category to **Vehicle Technician** and amended the structure to reduce the number of skill grades from nine to four.
- **Material Technician.** Renamed the ECN 235 Metalsmith category to **Material Technician** and amended the structure to reduce the number of skill grades from nine to four. An ab-initio pathway was established rather than a qualified entry only pathway.
- **Energy Technician.** Renamed the ECN 418 Technician Electrical category to **Energy Technician** and amended the structure to reduce the number of skill grades from eight to six.
- **Electronics Technician.** Renamed the ECN 421 Technician Electronic Systems category to **Electronics Technician** and amended the structure to reduce the number of skill grades from nine to seven.
- **Technician Assistant.** Established the ECN 034 **Technician Assistant** category consisting of a single skill grade.

ECN 046 Weapon Technician			ECN 046 Marine Technician		
ARes	Rank/s	ARA	ARes	Rank/s	ARA
146-T	CFN	146-T	222-T	CFN	222-T
146-1 PG 3		146-1 PG 3	222-1 PG 3		222-1 PG 3
		146-2 PG 3			222-2 PG 3
146-3 PG 4	CFN- SGT	146-4 PG 5	222-3 PG 4	CFN- SGT	222-4 PG 5

ECN 046 Recovery Technician		
ARes	Rank/s	ARA
226-T	CFN	226-T
226-1 PG 2		226-1 PG 2
226-2 PG 2		226-3 PG 3
226-3 PG 3		
226-4 PG 4	CFN- SGT	226-4 PG 4
226-S PG 5		226-S PG 5

ECN 229 Vehicle Technician			ECN 235 Material Technician		
ARes	Rank/s	ARA	ARes	Rank/s	ARA
146-T	CFN	146-T	222-T	CFN	222-T
146-1 PG 3		146-1 PG 3	222-1 PG 3		222-1 PG 3
		146-2 PG 3			222-2 PG 3
146-3 PG 4	CFN- SGT	146-4 PG 5	222-3 PG 4	CFN- SGT	222-4 PG 5

ECN 418 Energy Technician			ECN 421 Electronics Technician		
ARes	Rank/s	ARA	ARes	Rank/s	ARA
418-T	CFN	418-T	421-T	CFN	421-T
418-1 PG 3		418-1 PG 3	421-1 PG 3		421-1 PG 3
		418-2 PG 4			421-2 PG 4
418-3 PG 4	CFN- SGT	418-4 PG 5	421-3 PG 4	CFN- SGT	421-4 PG 5
418-5 PG 5	CPL- SGT	418-6 PG 6	421-5 PG 5	CPL- SGT	421-S PG 6
					421-6 PG 6

Communication to RAEME Ground soldiers

All RAEME Ground soldiers received letters from the Career Management Agency (CMA), via their Chain of Command, outlining changes to their Employment Category title and or number and their subsequent placement into the new structure with changes to skill grade and pay shown (if applicable). Over 3,000 letters were sent informing members of their individual changes and advising how to have any problems rectified, if any were identified. Unfortunately, there were a small number of personnel who were incorrectly re-categorised and these have since been rectified. If members believe they are still not categorised correctly, then engage your Chain of Command for assistance.

After an unforeseen delay the new Employment Specifications were published in August 2023 and are accessible via the [Manual of Army Employments RAEME page⁵](#) on the Defence Protected Network (this link will not work on the internet). This delay resulted in members not being able to check their new category requirements as outlined in their letters as well as CMA putting a temporary hold on some transactions associated with Skill Grade changes.

Artificer Land category

As shown above, the new structure sees the Artificer Mechanical, Artificer Electronic and Recovery Warrant Officer categories being absorbed into the Artificer Land category. Therefore; the terms Warrant Officer Recovery Mechanic (WORM), Artificer Mechanical and Artificer Electronic cease to exist and those members are now known as Artificer Land. There have been some concerns about posting members without the correct technical skills into specific technical positions and there is a body of work happening to ensure the PMKeyS data for those positions is updated to reflect the structural changes.

Training

Further work resulting from the DFRT determination has been the updating of current Learning Management Packages (LMPs) with updated capability training requirements and new naming conventions. New LMPs have been published for ab-initio training of Material Technicians (Unqualified Entry into the ADF), Marine Technicians and Technician Assistants. Training for each ECN has been updated and incorporates three main areas; **Base Trade training**, Generalist Fleet (**GENFLEET**) **training** (both are conducted during initial trade training) and Force Generation (**FORGEN**) **training** which occurs as required depending on an individual's posting requirements. FORGEN training will eventually accommodate emerging capabilities such as additive manufacturing, electric/ hybrid vehicles and solar/wind power generation for specific trades as the capability need is established. A fourth less common training type is Operations Generation (OPGEN) training which occurs as required prior to a specific operation.

Ab-initio training for Unqualified Entry Material Technicians, Marine Technicians and Technician Assistants is planned to commence in July 2024.

Marine Technician transition

The establishment of the Marine Technician category requires a deliberate and detailed execution that involves many stakeholders working to a plan that ensures the right balance of current qualified personnel are transitioned to the category without undermining the Weapon Technician and Vehicle Technician numbers whilst also developing the ab-initio cohort. To complicate this further the introduction of new marine capabilities and the workforce plan linked to the Army Littoral restructure must also be factored in. As further planning occurs and milestones are set then those

5 Pages - RAEME http://drnet/Army/DWMA/Manual_of_Army_Employments/Pages/RAEME_ES.aspx

members with marine qualifications will be engaged by CMA for the opportunity to re-categorise to Marine Technician.

Technical Workforce Review Closure

The Technical Workforce Review had a closure report raised and Implementation Directive 03/21 was formally closed on 24th of November 2023. There remains some work to do with Defence Recruiting for new category advertising, renaming of Army Position Numbers to incorporate new naming conventions and transitioning workforce into the Marine Technician category. There will also be a minor update to Corps Instruction 29: Badge Qualification Artificer, where the only requirement for Ground Categories will be the successful completion of the Subject 4 Warrant Officer RAEME course.

ASM – Land Introduction



On 06 Feb 24, the Chief of the Army, Lieutenant-General Simon Stuart, formally recognised WO1 Andrew ‘Jim’ Beaman’s advancement to Tier C. The Regimental Sergeant Major of the Army, Warrant Officer Kim Felmingham, was also present in support.

As reported in Army Newspaper of 15 Feb 2024, Jim’s appointment title is “Artificer Sergeant Major – Land”. This position was promulgated in DEFGRAM 448/2023 to create a new senior enlisted technical advisor in Defence’s Land Domain.

In this role, Jim will provide advice to the Chief of Army on the broad range of equipment currently in use. In a clear sign of support for all technical trades, Jim said his advancement acknowledged the skills that technical tradespeople can provide senior leadership; something not available from regimental WOs. It is clear that the Army’s senior leadership is aware of the criticality of having high-level technical advice on hand and the benefit it brings to the Army’s capability.

Jim recalled that when he joined in 1991, the most expensive piece of equipment he carried was his SLR whereas nowadays, the service rifle is probably one of the cheapest items and certainly far less technical than the laser range finders, GPS and communications equipment that modern soldiers carry.

For those wishing to advance to such senior positions, Jim’s advice is to broaden one’s career experience. This can be done through diversity in posting. Positions such as instructional postings allow an opportunity to not only impart knowledge, but also to hone administrative skills. Likewise, a posting to CASG will provide the opportunity to see how Defence equipment is procured and sustained throughout service. If an opportunity for posting to a recruiting position comes up, Jim recommends you take it. This is all very sound advice for anyone seeking to develop in their careers.

Some of you may have noticed that in these photos, Jim is not wearing a RAEME hat badge. The Army Dress Manual affords Tier C members further recognition in their daily dress in that not only will Jim wear the Coat of Arms as a hat badge (just as the RSM-A wears), he will also wear “Australia” shoulder titles, Rising Sun collar badges, no lanyard and a range of other smaller changes. He will also transition to Senior Rank Mess Dress. These changes are not to detract from Jim’s Corps heritage but to note the Army-wide impact such senior WO1s have and the esteem in which they are held. That said, the Dress Manual consistently refers to “Tier C RSMS” but as Jim is the first non-Regimental Tier C, he may eventually raise a RODUM to have this corrected!



Special Operations Advanced Manufacturing Cell

The Special Operations Advanced Manufacturing Cell (SOAMC) is a team of RAEME personnel nested within the Special Operations Logistic Squadron, dedicated to providing SOCOMD with unique capability solutions utilising Advanced Manufacturing technologies.

The SOAMC mission is to provide bespoke engineering design, fabrication and modification to SOF equipment in order to support the mission effect of SOCOMD elements. The team is led by a Mechanical Engineering Officer and ECN 146 Sergeant and consists of a range of RAEME trades including Weapon Technicians, Material Technicians, Electronics Technicians and most recently, the addition of a Vehicle Technician.

Advanced Manufacturing techniques have long been a part of SOAMC since its formative “Rapid Fabrication Cell” days, and consist of both additive and subtractive manufacturing methods utilising Computer-aided Design (CAD), Computer-aided Manufacturing (CAM) and other related software. 2023 saw a growth in capability in SOAMC within the field of Additive Manufacturing (AM) which included the addition of unique end-use polymer 3D printers. This has enabled the Cell to move further into certifying low complexity items, rapidly produced by AM using a high quality powdered nylon that has a premium, high-strength finish far exceeding the demands it is placed under. The addition of these printers has provided a pathway to further investigate the strengths and limitations of additive manufacturing methods, with the assistance from ADFA graduates in researching how the printed material behaves under different environmental and physical stressors. The intent is to learn where particular AM methods can best be utilised and to determine with engineered results, what the strength limitations of the material are. We hope that this pathway can lead to a better understanding and determination of applications in which AM can be used, as its presence within the world continues to grow.

At the heart of SOAMC training is the fundamental requirement to be proficient in CAD. Members within the Cell are given advanced training in the use of SolidWorks, along with the fundamentals in running simulations. This training forms, the backbone of Advanced Manufacturing as our RAEME tradespeople design unique solutions to solve very specific, yet sometimes wide-spread Military problems. With the combination of CAD skills and engineering processes, as well as an AM understanding and advanced Subtractive Manufacturing techniques, members of the SOAMC develop a strong, well rounded skill set to set you up for success in future postings within Army, both opportunistic and beneficial for career growth and engineering maturity.

Some of the equipment currently being used within the SOAMC includes:

Additive

- Polymer 3D printers including FDM, SLS and SLA
- Metal 3D printers including FFF and Cold-Spray

Subtractive

- 5-Axis CNC Mill and Lathe
- CNC Bender
- CNC Water-Jet Cutter



CFN L post-processing an SLS polymer print



CPL J machining using a 5-axis CNC Mill

Additionally, the Cell has 3D scanning capabilities for reverse engineering, along with other niche methods of bespoke manufacturing, both in-house and external utilising our RAEME brethren composite trades.

So what is SOAMC looking for? At its core, the SOAMC is an innovation and design driven capability. Skills in CAD, preferably SolidWorks are a great place to start. For any “garage machinists”, skills in CNC machining are highly desirable, as enhanced training on our 5-axis machines are fundamental skills taught to all ECN 146 who post into the Cell. Those who are interested or have skills in 3D printing and design, regardless of ECN are welcome. All design and manufacturing follow the LMSM with SOAMC certification within SOCOMD essentially the same as the LEADL process applied in Army.

SOAMC provides a unique opportunity for RAEME tradespeople to develop their problem solving skills as well as gain significantly enhanced training and experience in the field of advanced manufacturing. For those interested in a posting into SOAMC, the first step is to engage with your chain-of-command and to identify it on your Soldier Career Planning Tool. Good reporting within your current unit as well as a vocal desire to post into SOCOMD is a must as posting positions are highly competitive.

RAEME has implemented a Diagnostic Assessment (DA) for entry into SOCOMD for ECN 146 (Weapons Technician) and ECN 229 (Vehicle Technician). These trades require additional testing as other trade-specific roles are available to you within SOCOMD. The DA consists of the Special Forces Entry Testing (SFET) conducted by ADF School of Special Operations (ADFSSO), and an interview process conducted by current SOCOMD-serving RAEME SNCOs. Additional information on gaining employment within SOCOMD as an enabler for all ECNs can be found on the ADFSSO SharePoint page. Attending the ADFSSO-facilitated Special Operations Information Tour (SOIT) is the best way source information, ask questions and decide if a career in SOCOMD is right for you.

Army Projects with future maintenance requirements

The [2016 Defence White Paper](#)⁶ led to a comprehensive Force Structure Review resulting in The [2016 Integrated Investment Program](#)⁷ (IIP). The IIP guides the implementation of the bulk of investment over the decade to FY 2025–26 to build the future force and Defence capability goals of the Defence White Paper. Fast forward to now and we are 12 months away from the IIP original endstate. A lot of new capability systems (made up by Fundamental Inputs to Capability (FIC) such as the major system i.e. ‘the main battle tank’, facilities and training areas, personnel, supply, support, industry etc.) are looming on the very near horizon. The Capability Acquisition and Sustainment Group (CASG) as the delivery agency, with supporting contractors, are following the Systems Approach to Defence Learning (SADL) process to determine maintenance training required. The capability systems will be introduced into service by the project team, until project training milestones are met. Once this milestone is met, maintenance related training will be handed over to the Army Logistic Training Centre (ALTC) for ongoing sustainment training.

The recent [Defence Strategic Review 2023](#)⁸ (DSR) has refocussed efforts on a northern force posture and accelerated preparedness of specific capabilities and logistic effects. Whilst the bulk of new or replacement capability projects are still marching onwards, some have reduced in quantity and some have the need to be accelerated and expanded. Regardless of quantity we are buying, the same maintenance training needs to occur.

In the Land domain, the DSR recommended the following should be accelerated and expanded:

LAND 8710 Phases 1-2 – Army Littoral Manoeuvre Vessels (Landing Craft Medium and Landing Craft Heavy)

LAND 8113 Phases 2-4 – Long-Range Fires (HIMARS)

LAND 4100 Phase 2 – Land-Based Maritime Strike.

The following have been reduced in numbers:

LAND 400 Phase 3 – Land Combat Vehicle System (Infantry Fighting Vehicle) acquisition should be reduced from 450 to 129 vehicles to provide one mechanised battalion

LAND 8116 Phase 2 – Protected Mobile Fires (second regiment of Army self-propelled howitzers) should be immediately cancelled.

The DSR expressly advised that Army will only be able to achieve the strategic and operational effect required of the ADF for National Defence and a strategy of denial by concurrently delivering littoral manoeuvre vessels, long-range fires (land-based maritime strike) and infantry fighting vehicles.

Further detail on why the projects are accelerated/expanded or reduced/cancelled can be found in the DSR link above.

A summary of some incoming equipment with a maintenance liability is detailed below. All information has been taken from open source internet pages or cleared via the project office to ensure security of information.

6 2016 Defence White Paper <https://www.defence.gov.au/sites/default/files/2021-08/2016-Defence-White-Paper.pdf>

7 2016 Integrated Investment Program https://www.defence.gov.au/sites/default/files/2021-08/2016-Defence-Integrated-Investment-Program_0.pdf

8 Defence Strategic Review 2023 National Defence: Defence Strategic Review 2023 | About | Defence

JOINT PROJECT 2060 Deployable Health Capability (DHC) will result in a fully redesigned Bio-Medical Equipment Maintenance Course (BEMC) to match the new full suite of deployable medical/dental equipment being rolled out in four Capability Materiel Releases (CMRs). The BEMC will have less focus on human bio-mechanics and more focus on maintaining the equipment the project is buying for the ADF, whilst still retaining some bio-mechanics and hospital placements. The BEMC trial course will be delivered by SAAB/Aspen at the new DHC Support Centre (DHC-SC) in Ipswich QLD in Q3 2024 and will be delivered at the DHC-SC for the life of the capability.

LAND 19 Phase 7B NASAMS Short-Range Ground Based Air Defence (SRGBAD) The SRGBAD Capability being acquired under Land 19 Phase 7B is the inner layer of the land-based component of the Integrated Air and Missile Defence (IAMD) program. L19-7B is acquiring an enhanced version of the Enhanced National Advanced Surface to Air Missile System (NASAMS) from Raytheon and radar systems from CEA. Missile Systems will be mounted on Hawkei PMV-L and the larger variant on HX-77 trucks.

There are six new maintenance courses to be conducted by the respective OEMs at 16 REGT RAA for the life of the capability:

218567 - NASAMS Generator Maintenance Course (ECN 418 Energy Technician)

218834 - SRGBAD CEA Phased Array Radar Electrical Maintenance Course (ECN 418)

218565 - NASAMS Launcher Maintainer Course (ECN 421 Electronics Technician)

218543 - NASAMS Command and Control System Maintainer Course (ECN 421)

218566 - NASAMS Electro Optical Infra-Red (EOIR) Maintenance Course (ECN 421)

218835 - SRGBAD CEA Phased Array Radar Electronics Maintenance Course (ECN 421)



*Enhanced NASAMS system concept image
(RAYTHEON via ADBR)*



*A US Navy JCREW dismounted CIED system.
(US NAVY)*

LAND 121 Tyre Changing Shelter (TCS)

replacement will be rolled out with no training required for maintainers. Technicians will use their base trade knowledge and ILS documents including EMEIs, OEM manuals and RPS to maintain the capability.

LAND 154 Phase 4 Tranche 1 Joint Counter-Improvised Explosive Device (JCIED)

Electronic Counter Measures (ECM) will provide the ADF with new mounted and dismounted variants of the Joint Counter Radio-Controlled Improvised Explosive Device (**RCIED**) **Electronic Warfare (JCREW)** Increment One Block One (11B1) systems. The tranche will also include vehicle installation kits, accessories, spares, and support equipment. The trial course for L154 JCREW FPECM Maintenance (ECN 421 Electronics Technician) was successful at the Army School of Electrical and Mechanical Engineering (ASEME) Electrical and Electronic Systems Wing (EESW) in late 2023. Training will be rolled into the Electronics Technician Initial Employment Training

(IET) course in 2024 and a learning solution for the current system trained boffins is still being determined, likely on the Australian Defence Enterprise Learning Environment (ADELE).



T4 and T7 Robotic Systems (L3Harris)

LAND 154 Phase 4 Remote Positioning Vehicles (RPV) with 40 light RPVs, 80 medium-sized T4 RPV robots and 30 heavy large-sized T7 robots, with the medium and heavy to be supplied by L3 Harris. ALTIC is yet to receive the Learning Management Package (LMP) or training materials. Details of the robots can be found at [Robotic Systems | L3Harris® Fast. Forward⁹](https://www.l3harris.com/all-capabilities/robotic-systems). Web page.

LAND 159 Lethality systems – new pistols, shotguns, sniper systems, fighting knives etc. The project is currently undertaking a Performance Needs Analysis (PNA) to determine if and what training is required on the new families of weapons. Most of the weapons will eventually be rolled into the ATT Weapon Technician Course where maintainers learn weapon families through systems based learning. The intent is that once you learn to maintain the weapon system, you don't need specific training on every variant.

LAND 400 Phase 2 Boxer CRV variants – The initial rounds of Boxer Block 2 maintenance courses for the reconnaissance variant with turret and 30mm main cannon will be as follows:

219238 - Boxer Combat Reconnaissance Vehicle Maintainer - Weapon Technician

219239 - Boxer Combat Reconnaissance Vehicle Maintainer - Electronics Technician

219240 - Boxer Combat Reconnaissance Vehicle Maintainer - Vehicle Technician



Training for other mission modules that can be fitted to the drive module are currently being analysed by the project team. The modular system is shown above in expanded recon variant with further detail at source of these graphics - [Boxer Armoured Vehicle - Details and Variants - Think Defence¹⁰](https://www.thinkdefence.co.uk/2022/11/boxer-armoured-vehicle-details-and-variants/)) It is expected there will additional training for multiple trades on the following interchangeable modules:

Recovery – RAEME crewed - Includes a winch system - left below

Repair – RAEME crewed - Includes a crane (Fitters) - second from left below

Command & Control (C2) – third from left below

Joint Fires Surveillance (JFS) - Includes an enhanced target acquisition system – right below



⁹ Robotic Systems | L3Harris® Fast. Forward. <https://www.l3harris.com/all-capabilities/robotic-systems>

¹⁰ Boxer Armoured Vehicle - Details and Variants - Think Defence <https://www.thinkdefence.co.uk/2022/11/boxer-armoured-vehicle-details-and-variants/>

LAND 400 Phase 3 – Infantry Fighting Vehicle – announced as the Hanwha Defense Australia AS21 Redback. Training is yet to be analysed via the Systems Approach to Defence Learning (SADL) process by the project. ALTC expect that M113AS4 maintainers will be upskilled via Introduction Into Service (IIS) training for Electronics Technician, Vehicle Technician and Weapon Technician.

LAND 8113 Long Range Fires: HIMARS and Ammunition Resupply Vehicle Training is currently being analysed by the project and reviewed by ALTC. It is likely there will be courses for Vehicle Technician and Electronics Technician.

LAND 8116 – Protected Mobile Fires: Self-propelled Howitzer and Ammunition Resupply Vehicle There will be courses for:

- 218974 PMF FOV - Recovery Technician IIS Course
- 218975 PMF FOV Maintainer - Electronics Technician IIS Course
- 218976 PMF FOV Maintainer - Vehicle Technician IIS Course
- 218977 PMF FOV Maintainer - Weapon Technician IIS Course



A South Korean K9 Thunder SPH at the Shoalwater Bay Training Area during Exercise Talisman Sabre 24 (Defence)

LAND 8710 Phase 1 Littoral Manoeuvre System includes new Close Support Craft (CSC) – think small patrol boat, Amphibious Vehicle – Logistics (AV-L) to replace LARC-V, LC-M to replace LCM-8 and new capability LC-H. Army is buying a Navy! The project has yet to commence the PNA but as this project is closely related to the new ECN 222 Marine Technician, the new vessels will likely be maintained by upskilled marine fitters who transfer into ECN 222.

LAND 907/8160 – Heavy Armour Capability System (M1A2 SEP V3 Abrams and Combat Engineer bridging and breaching vehicles). There will be courses for the following commencing by a US training team as ASEME in Bandiana from Q3 2024:

- 218647 IIS Tank M1A2 SEPv3 Vehicle Maintenance
- 218648 IIS Tank M1A2 SEPv3 Armament Maintenance
- 218649 IIS Tank M1A2 SEPv3 Control Systems Maintenance

The Combat Engineer Vehicle training will be analysed by the project as more details are known.

Conclusion

This is only a snapshot of the current projects and not all new equipment is covered. There is a lot of equipment on the way and a large number are new capabilities, not just replacement systems! The future is looking bright for the Crafties as we increase the technology in our fleets which brings a new set of maintenance and logistic challenges to keep these fleets available to the Warfighter.

Land 19 Phase 7B & the Introduction Into Service of eNASAMS

16th Regiment Royal Australian Artillery

LT Lincoln Homrody



Fire Distribution Centre, CEAOPS Radar, Canister Launcher and Electro-Optical Infrared Sensor

The past 12 months has been a busy and highly exciting period for Army's air defence community with the key focus being the Introduction Into Service (IIS) of the ADF's new Short Range Air Defence (SHORAD) capability – e National Advanced Surface to Air Missile System (eNASAMS), and the primary goal of achieving Initial Operating Capability (IOC). This capability is a first for Army, providing the ability to engage air and missile threats beyond visual line of sight out to a range of 30km, compared to the previous SHORAD system, Rapier (7km) which was retired from service in 2006. eNASAMS also provides a vast capability enhancement to the current VSHORAD equipment that is limited to a range of between 5-6kms and a ceiling height of 3kms. With the addition of the eNASAMS and CEA equipment, L19 Ph7B will also see an extensive L121 vehicle delivery consisting of 55 Protected Mobility Vehicle-Light (PMV-L)s (4dr and specialist 2dr variants), 13 HX77s, 9 40Ms (crane and cargo variants) and a 45M, all due to the Regiment by the end of 2025.

The suite of L19 Ph7B equipment consists of the following, each with its own bespoke power generation system (PGS):

- Fire Distribution Centre (FDC) – The overall C2 system, capable of controlling multiple sensors, effectors and interfaces. The module is mounted on a 40M, providing a mobile Battle Management Command, Control, Communications, Computers and Intelligence (BMC4I) capability that is capable of integration with the Joint Force.
- Canister Launcher (CL) – A static launcher consisting of 6 rails, capable of mixed loading and firing of AIM-9X, AIM-120 and AMRAAM-ER missiles. The launchers are transported on a HX77 with a support PMV-L utilised to transport its PGS.
- High Mobility Launcher (HML) – The mobile launcher mounted on a bespoke 2 door PMV-L. This system provides a similar capability to the CL, however provides commanders the flexibility to deploy more rapidly and in terrain that may not be suitable for the larger HX77.
- Electro-Optical Infrared (EOIR) Sensor – This system is a combined IR and visible spectrum camera that provides verification, assessment and general surveillance. It is mounted on a bespoke 2 door PMV-L.
- Warn System – A Mobile speaker system mounted on a PMV-L trailer that provides early

warning to troops on the ground against rockets, artillery and mortars.

- CEA Tactical Radar (CEATAC) – Tactical level radar mounted on a bespoke 2 door PMV-L and employed at the Troop level.
- CEA Operational Radar (CEAOPS) – Operational level radar, mounted on a HX77 or ILHS trailer and employed at the Battery level. Both CEA systems employ active electronically scanned arrays (AESA) to deliver protection for the Joint Force.



Deployed CEATAC Radar



Deployed CEAOPS Radar



Electro-Optical Infrared Sensor



High Mobility Launcher

Maintainer Training

To provide the enabling effects for IOC, and support the Regiment in achieving Full Operating Capability (FOC), the initial rounds of maintainer training for ECNs 418 and 421 began in July at the CEA Technologies facility in Canberra. The training was split into separate iterations for each employment category, with each taking place over a two-week period, focussing on the maintenance requirements of the CEATAC and CEAOPS radars, and their PGS.

The Raytheon courses began in August, run by the Original Equipment Manufacturer (OEM) Field Service Representatives (FSR) that have integrated into the Regiment and are working within the TST workshops at



PGS Course

Woodside Barracks. These covered the full suite of technical requirements for maintenance of the new equipment and will provide TST the ability to maintain the equipment in a high tempo deployed setting with highest level of efficiency so as to allow for the greatest level of persistency for air defence elements with minimal equipment downtime. The first of these to begin was the FDC course, closely followed by the EOIR sensor, CL, and finally the Warn System. A consolidated PGS course was also conducted over 5 days for the 418s which covered all Raytheon bespoke generators and the individual systems' high capacity battery storage.

Overall the pilot courses were highly successful, with course learning reviews conducted to shape future iterations into more efficient courses.



Canister Launcher Course



Canister Launcher Course

RAAF Edinburgh Build

Commencing in 2025, 16 Regt RAA will begin relocating to its new home at RAAF Base Edinburgh which is currently under construction. The workshop will be a brand new facility combined with the whole of CSS Battery, taking on a more traditional set up of a consolidated workshop as opposed to the current dispersed layout at Woodside. The new workshop will be a welcome addition, providing some much needed new equipment, larger vehicle bays to better accommodate the L121 FOV, and will be a zone 3 rated facility to allow for the repairs of classified systems.

Overall, it has been an exciting period for the Regiment, and the next 12-24 months will prove to be equally as exciting with the completion of milestones and final delivery of equipment that will see the achievement of FOC. This period will consist of the transition of 16 Regt from the 6th Combat Support Brigade to The Fires Brigade (10 Bde), which will also see the acquisition of a number of High Mobility Artillery Rocket Systems (HIMARS) under Land 8113. To summarise, Adelaide is the place to be for any Boffins looking to pursue a specialist stream in the future.



3D rendering of the future Combat Service Support Battery facility due for completion in 2025

The Story of the Leslie and Payne Memorial

(Dedication speech delivered by LTCOL T McDermott)



The story of the memorial that we now stand in front of is a good one. While it is born of sadness and tragedy, it tells a tale of positivity and community that will make your heart warm. My aim in the next ten minutes is to briefly summarise this story. The point is not to highlight individual people (although I'll do that at the end): instead I want to speak of the actions of the many, the collective community that made this memorial possible.

The story starts on 18th November 2021. It was on that day that two exceptionally brave women first visited this tragic site. It was a hard day, with many tears, and that evening a small group sat in a Townsville steakhouse to rest and reflect. The group were close after a day like that, with a new sense of shared experience, and for the first time the idea of a permanent memorial to Ryan and Brendon was discussed.

The restaurant, which a lot of us visited again last night, had paper table cloths ... and so with a borrowed pen the sketch of a memorial was drawn out. Some key decisions were made. The group felt the crash site retained a strong sense of both Ryan and Brendon, so the decision was made early to place the memorial here. The memorial, it was felt, should be in the form of a rest stop: a peaceful place for families and friends to visit and pause, to remember and reflect. The group walked away with not much more than an idea on a tablecloth, but it was clear to all that it was a good one.

But where to take the idea next? Well, this is where the magic of the RAEME started. The tablecloth photo was passed to a young, recently transition RAEME Corporal running the 'innovation space' in Enoggera Barracks in Brisbane. Within days this young man had turned a pretty shabby sketch into an electronic rendering: a Computer Aided Design that took an idea and turned it into reality. The dust was still settling after the accident and there were many other things to think about, but this image kept the idea of the memorial alive: the perfect vehicle for discussion.

Fast forward a number of months, and we arrived at the first anniversary of the tragedy. Over a hundred people gathered at this site a year ago today to remember Ryan and Brendon, in an outpouring of love and sadness. It was clear to everyone who was there that the site was a special place, and would remain so. Ryan and Brendon's loss was broad and raw, and family and friends needed a place where they could come together properly to remember. After that day the memorial was no longer just an idea, it was a necessity. We shared the image of the proposed memorial that day, with much support, and we left determined that it should be built within the year.

Momentum built rapidly from there. The next step was to form a committee, and the wisdom and support of the RAEME community was critical. Senior members of the RAEME Association of Queensland stepped onto the memorial committee to give their experience, and the Association agreed to add vital structure to the project, including the RAEME's best treasurer to manage the dollars! Soon the Councillors of Charters Towers had, without hesitation, given their blessing to the memorial being built and so, in early February this year we began to raise funds in earnest.

The response was simply exceptional. Donations rolled in not just in the hundreds, but in the thousands of dollars. Major organisations such as the 2/14 LHR (QMI) Association and the RAEME itself provided large donations, as did a number of Australian companies run by RAEME veterans who quickly contributed. But it was the speed and scale of smaller and individual donations that really blew us away. Those who knew and loved Ryan and Brendon, their families and friends, dug deep, as did the serving soldier community who ran raffles and BBQs. The memorial was funded in just five months, a true testament to the collective determination to remember Ryan and Brendon.

From there the race for the build began, and we were determined to meet the second anniversary date. For the construction we turned to the Townsville community. We started contacting local construction companies and one quickly jumped out. The owners of this company, with a long history of doing work for Army, were out on the range on the day of the incident and remembered it well. It was clear from the outset that they weren't just willing to take on the work, they were determined to be involved. Passionate and exceptionally patient, they dealt with a project that came to them in small pieces, often with incomplete information and lots of uncertainty. But I remember talking to the owners at one stage about the challenges and they said, and I quote, 'we will make this happen'. They took every twist and turn in their stride and I cannot thank them enough for their help. Underpinning it all were the team from Charters' Towers Council, who helped ease the road (and waive the fees) for the construction to take place, and then went out of their way at every turn to visit the site, to provide advice, and to support the project.

With the construction in hand, the centerpiece then came from the only place that was fitting: the hands of RAEME Craftsmen. Seven RAEME artisans from Craftsman to Sergeant worked on the piece, welding and crafting to make a thing of beauty, with another seven in support. Many of them had been trained by Ryan and had served with Brendon. It should be clear to all that stand here today that this memorial is a marker of the love and respect by which they hold their fallen comrades. It is, put simply, a work of art. Working at the head of this team was a RAEME Captain, an officer who wasn't serving at the Light Horse at the time of the accident but instantly saw the need to help. Acting as the project manager, he put in countless hours of his own time to coordinate, to cajole, to find resources, and even to build Gant Charts to make sure the Memorial was delivered on time. I told last week that, without this Captain, the memorial would not be here today, and so I pass him my endless gratitude for his work.

I could go on with this story. I could tell you of the company in Brisbane who painted the memorial, and then refused to accept a cent in payment for the work. I could tell you about the Townsville company who provided the steel reinforcements at cost, with no profit to themselves. But ultimately, thanks to them all and to you, the task was done. We stand here today with an enduring memorial to two wonderful soldiers. It has been said that grief is like an ocean, that it washes over you in waves that might recede over time but never really ends. My hope is that this memorial becomes an island for those who grieve for Ryan and Brendon, a bastion of peace and tranquillity where the waves might lap, but they are gentle when they do so.

Last week I spoke to a soldier who knew Brendon and was unable to attend today. He was really sad, but ended the conversation saying, 'but I'll be up there later in the year, so will go to the memorial and pay my respects'. This made my day. Major General Blain spoke in his address of



the Ode, and how it reminds us that, at the going down of the sun and in the morning, we should remember them. Now, thanks to so many who loved and cared for Ryan and Brendon, this remembrance has become all the more possible.

I promised at the start of this story that I would thank the cast of characters who made it happen. So, hoping that I haven't missed anyone, my deepest thanks go to the following:

- In terms of the management of the project and the fundraising:
- COL Steve Evans as the RAEME Colonel Commandant for Queensland and Mick Patman as Treasurer. COL Steve offered without hesitation to become the Chair of the Memorial Committee, and Mick offered considerable time and diligence as the Treasurer.
- Next, the RAEME Association of Queensland, who not only offered to allow the Committee to run funds through their structures, but were at the heart of advertising the fundraising through Friday Files, the Spanner News, and other media. The Association is represented today by Mr Peter Mathews, so thank you.
- The 2/14th LHR (QMI) Association, represented here by Mr Craig Whiteman, who were one of the firsts organisations to make a major donation.
- The RAEME as a Corps (who also made a significant donation), represented by the Head of Corps, Brigadier Ben Slaughter.
- The RAEME community from industry and entrepreneurship who provided significant donations, including Mr Glenn Keys; Mr Steve Baxter; Mr Andrew O'Connor from KPMG who was Ryan's Troop Commander in the Solomon Islands; and Nova Systems, represented by Mr Peter Young.
- And thanks also go to the well-over two hundred members of family and friends who donated and raised money, from individual donations in the tens to thousands of dollars, and through to those who ran raffles and events to pull in the funds. Every single dollar for the memorial project was gifted, and it is thanks to you all that we are here.
- In terms of the construction of the memorial, thanks go to:
- Mr Tom Hamelink, the original designer of the memorial who turned a mediocre sketch into a reality.

- The Craftsman who built the memorial: CFN Zackary Barthelson, CFN Matthew Oxenham, CFN Thomas Rudolph, CPL Bradley McDonald, CPL Joshua Colette, SGT Zane O'Loan, and Mr Lee Savage.
- The RAEME support team of WO2 Stoman, SGT Bridgen, CPL Croft, CFN Lockey, CFN Lewis, CPL Wendt, CPL Murtagh.
- The 3 CSSB team who placed the memorial at the site: WO2 Wicks, CFN Mouws, CFN Hucker and CFN Buchanan.
- MAJ Justin Ryan, who supported the project from the start, and CAPT Jesse Wood, the project manager with the Gant Charts, who showed remarkable dedication to getting the centerpiece built on time.
- The 2nd/14th LHR (QMI) writ large, represented today by the CO, LTCOL Craig Malcolm, and the Townsville units who provided constant support: the 2nd Cavalry Regiment and 3 CSSB. A true example of the strength of Army's community.
- The team at Charters Towers Council, represented here by the Deputy Mayor Councillor Graham Lohmann, and a specific thank you to Mr Nick Hall, who was of the greatest help in facilitating the construction.
- The team at ABI Coatings in Brisbane, who painted the memorial and refused to accept payment.
- Mr Dan Spargo and Mr Bobby Holman, and all at SHP Construction and Civil, who said they 'would make it happen' and then did. I hope that every time you drive past this memorial you feel pride in your excellent work.
- And finally, I would like to thank Mrs Tara Leslie and Mrs Aimee Payne, and the Leslie and Payne families. Thank you for letting us continue to be a part of your lives, and for your permission to build this memorial to Ryan and Brendon. We are deeply grateful for both your and their service and sacrifice, and we hope you and they are proud of what has been done in their name. We will never forget them.



Maintenance Support Plan for Mental Health

WO2 Cheyne Truelove

Service to Australia and its national interests through employment within the ADF is extremely rewarding; but can also present some unique challenges to one's health and wellbeing. Soldiers and Officers are often exposed to conditions throughout their training and service that will challenge them physically, cognitively, emotionally, and socially. Effective identification and management of these challenges, both during and post-service, are critical to maintaining effectiveness and long-term health and well-being.

During the 2010 ADF Mental Health and Wellbeing Study, it was identified that one in five ADF members met the criteria for a mental health disorder. Anxiety disorders were identified to be the most common amongst ADF members, with Post Traumatic Stress Disorder being the most prevalent; mood (depression) and alcohol disorders were also highlighted as areas of concern amongst our members (ADF, 2010).

Unfortunately, these statistics do not improve within the veteran community (transitioned ADF member). The 2018 Report to the Mental Health and Wellbeing Transition Study highlighted that three out of four transitioned members would meet the criteria for a mental disorder in their lifetime; with approx. 50% experiencing a disorder within the previous 12 months. Dr Khoo (2019) reported no difference in rates of psychiatric illness between non-deployed and deployed populations.

The most alarming and tragic reporting is that 1600 ADF members and veterans have died by suicide between 1997 and 2020 (AIHW, 2022). The prevalence of suicidal ideation and making a suicide plan was significantly higher in the ADF compared to the Australian community, with the rate of suicidality in the ADF being more than double that in the general community (ADF, 2010).

One suicide is far too many. It honestly breaks my heart every time I hear of someone who has served their country with pride and distinction feeling so worthless and alone that they make the decision to end their own life. In my opinion, even just as tragic as the loss of a comrade through suicide, is the prevalence of serving members and veterans that suffer due to mental illness that never get to achieve their full potential and recognise their purpose.

Fortunately, the long term health and wellbeing of our service men and women is a priority of the Australian Government, with significant resources being committed to the problem sets identified above. There are some amazing people and organisations committed to supporting our members, their families and problems they may be confronted with.

As maintainers, managers and former members of the Corps of Royal Electrical and Mechanical Engineers, we are problem solvers. This paper serves to take the systems, frameworks and knowledge that is second nature to us and translate them into mechanisms we can use to enable ourselves and our mates to identify and rectify any 'system faults' within our own capability. The thoughts and opinions expressed here are entirely my own and should not serve to replace those of clinical mental health professionals, but rather be used to challenge the thinking about how we can self-manage and make adjustments to our output, in terms of maintenance support. Just as equipment husbandry is the responsibility of every commander and soldier, it is my belief that supporting positive mental health is also an individual and collective responsibility charged to us all.

Principles of Maintenance Support for Mental Health

Just as a maintenance support plan is developed to maximise the total availability and effectiveness of a capability or item of materiel; the same concepts can be applied to us as individuals and

teams to maximise our success as soldiers, officers, friends, spouses, parents, siblings and members of the community. Throughout our RAEME service, we have all managed, maintained, and enhanced fleets of equipment to support the Commander's mission/s. The principles of balance, foresight, flexibility, economy, simplicity, responsiveness, sustainability, survivability, co-operation, forward repair, and self-sufficiency are practiced daily as RAEME maintainers and Commanders; these principles have been used as a reference to explore an engineering approach to managing, maintaining, and enhancing ourselves and our mental health (LWD 4-2 Maintenance Support, 2009).

Resilience. Building resilience into any system, such as a supply chain or a maintenance support plan, allows it to cope with fluctuations and adverse impacts. The more resilient a system, the quicker it can optimize and restore capacity after it has been shocked. Likewise, resilience has been identified as a key component to protecting ourselves and adapting to risks faced that may adversely affect our mental health.

Condition monitoring. A function of preventative maintenance, condition monitoring is critical to predicting health, performance, degradation, and component pre-failure through a range of inputs. Understanding where our current strengths and gaps are; in the domains of physical, emotional, cognitive, and social, will allow us to view the self-terrain we are operating from and construct an internal map as a start state. Just as in the science and art of navigation, we must first be able to measure our relative position in reference to other known points before navigating towards a desired destination or to get back on track.

There are many methods available to us to monitor condition; psychological screening, fitness tests, health checkups, and well-being surveys. A versatile and effective metric that is free and provides a practical snapshot is the Resilience Shield Survey (can be accessed at <https://resilienceshield.com/>). It was developed by former SASR veterans Tim Curtis, Ben Pronk and Dan Pronk and measures total resilience across four layers; Body, Mind, Social, and Professional. They also have an amazing book available of the same title that is highly recommended.

Whatever condition monitoring you decide to use, it is important that samples or snapshots be taken regularly to identify any 'maintenance tune ups' that may be required to manage progress. Think of doing the Resilience Shield survey every quarter, the same as conducting a non-technical inspection, identifying any routine maintenance that is required before it becomes more costly and difficult break down maintenance. Imagine a vehicle that has a 'check engine' indicator illuminated that continues to be operated for months/years without the operator taking it to have a scan tool connected to diagnose the issue, resulting in major component failure that could have been easily and cheaply avoidable. Now imagine you are a soldier that has been feeling flat for some time; you begin to have intrusive thoughts that make you uncomfortable, like the 'check engine' light you just ignore it but they don't go away. Could a system where your condition is regularly monitored for variances; alert you to potential 'maintenance' that may be required to avoid further deterioration?

Preventative maintenance. This categorises all the inputs and activities we do that can keep us functioning fit, healthy and optimized for success. We conduct preventative maintenance to maximize our uptime and to avoid more complex corrective or breakdown maintenance. Some examples that have had a lot of peer reviewed literature written on them, as being key inputs that support positive mental health are: nutrition, sleep, water consumption, exercise, cold showers (ice baths!), meaningful social networks and engagement, engaging work, continued education, meditation, breathing (correctly), volunteering, mindfulness, goal setting and exercising gratitude. Of course there are many more than this, the key is to try different inputs and identify those that have a positive effect and work them into our 'Preventative Maintenance Schedule.'

Another preventative measure is to regularly check in with a mental health professional, coach, or mentor to continue to confirm that your system is optimized and functioning as desired. It is important that we seek out external verification from a trusted source; if we are the only ones verifying our own work then we can form an echo chamber that may be blind to identifying areas for improvement; like a Tier One TRF Audit! For too long within our organisation, seeking the assistance of a psychologist or similar professional has been seen as a negative occurrence or as an indicator that something is 'wrong'. This needs to change, I would suggest that if you are not periodically speaking to a psychologist or similar mentor for the purposes of seeking out peak performance, then you are not ultimately committed to succeeding (whatever form/s that is for you).

Corrective / breakdown maintenance. These forms of maintenance are typically more time consuming and costly to effect repair; however, everything can be repaired. I would metaphorically compare these to being more serious in nature, such as a state of crisis or mental burnout due to insufficient preventative measures being in place or catastrophic event/s occurring. These examples are where the mental health professionals need to be involved.

Fortunately, there are countless, world class resources available to us that are positioned to provide immediate assistance if and when required. The chain of command is the best place to access these services if still serving, or Open Arms – Veterans & Families Counselling (<https://www.openarms.gov.au/> or 1800 011 046) if not comfortable with CoC or retired.

I cannot stress enough, if you believe you or someone you know may be in a state or situation where you believe professional assistance is required; then doing nothing is not going to improve the situation. If nothing else, make a call.

Production Conferences. Communication is the lubricant that makes everything operate smoother! Communicating about mental health helps to destigmatize it and remove some of the barriers that have previously constrained members from seeking support. As commanders and managers do we create an environment that is respectful and open where people are comfortable to share concerns they may have and invite group problem solving?

A critical requirement in developing a framework to strengthen resilience and build positive mental health, is finding a language that everyone understands. During this paper we have compared the language of 'Maintenance Support' to some of the tenets of positive Mental Health. Other frameworks that have been effective with establishing understanding with veterans is the use of processes such as SMEAC, CONOPS, or the Military Appreciation Process (MAP). The key is finding a concept that is well known and use that to develop a plan.

Forward Repair / Self-sufficiency. The principles of repairing as far forward as possible and being self-sufficient are also key to enabling our people living healthier and happier lives. I refer to 'as far forward as possible' as the ability for everybody to be a supporter of positive mental health. Often, issues that may be troubling a member can be identified and mechanisms put in place before more complex issues arise. Being self-sufficient refers to having your own mental health in check and ready to go so that you capable of supporting the rest of the 'fleet.'

Capability Development (CAPDEV). RAEME maintainers and engineering officers are crucial in the development and continuous improvement of our platforms to meet the current and future demands of the battlespace. As further knowledge and understanding of mental health becomes available through studies and through leaders, those of us on the ground must seek out and implement any 'modifications' to continuously improve our capability for best effect. Whether it be through strategies, education, or upskilling; ground up solutions typically have the greatest immediate results.

With CAPDEV comes an essential need to analyse past decisions, review our lessons learnt and assess proposed solutions against forecasted challenges continuously. The same problem-solving approach applies to the optimization of human capability. If a SQN/TP/SECT expect mental hardship or foresee a challenging period for our soldiers and officers, we need to look at how we previously dealt with challenges and consequently, determine how to equip our human capabilities for the identified risks. As seen for equipment likely to be exposed to maritime environments, we will analyse the time/resources/risk before conducting our sea preparation to retain the usability of our capability. With CAPDEV, we look at deficiencies in current capability to drive the planning for replacement options. This development is transferrable to human capability – what can current and future technicians be equipped with to overcome the challenges we foresee in 2027? What were our deficiencies in previous conflicts? What are the requirements we foresee and are they still relevant? Again, no different to questions one would ask for the procurement for a new fleet of generators or vehicles. The benefit now is the availability of support and training we have as detailed in the report. Through this, we need to maintain a “Mission First, People Always” mindset to ensure our priorities are not limited to quantifiable aspects of capability (equipment over people).

Conclusion

There are many more variables involved with something as complex as mental health and I do not make light of the challenges some of us face. However, using a system, any system, to support and manage a complex scenario does assist in defining the ‘faults’ and developing the ‘fixes.’ We have all seen the results of improved equipment availability when a robust condition monitoring and preventative maintenance schedule is implemented when operating in austere environments.

TP CMDs, Sect CMDs, ASMs; if you have yet to, I urge you to all to sit down with your people use the frameworks available to develop your own ‘Mental Health Maintenance Support Plans’ in language and terminology that is common to the capabilities you maintain (Inf, Armd, Art, SOF, Marine, MS, etc). We are the problem solvers of the Army, and the ‘problem’ of our members not living to their potential, or at worst, taking their life; is a shared problem for which we are all responsible for contributing towards the solutions.

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Matt Stone Racing Partnership



This year, 19 Vehicle Technicians (VT) joined V8 Supercars team Matt Stone Racing (MSR), working alongside their crew members in the pits at nearly every race weekend of the season.

What started in 2022 as a Professional Development opportunity between 20 Regt, RAA and MSR has grown into an established partnership, offering remarkable opportunities for our VTs all around the country.

At the F1 GP in Melbourne, VTs from Defence Force School of Signals and Capability Acquisition and Sustainment Group worked into the early hours to repair vehicles in time to race the following day, much like the VTs from 16 Regt, RAA and 1 Armd Regt in Adelaide. In Townsville, VTs from 5 Avn Regt conducted deep level repairs on engines and transmissions, while most notable, in Darwin, VTs from 1 Avn Regt were instrumental in the team's winning race.



CFN Thomas Noble & Layla Williamson of 5 Avn Regt check the engine of a Matt Stone Racing Camaro at 2023 NTI Townsville 500

Our VTs have done such an amazing job at displaying their abilities, that MSR has now committed to offering this opportunity for years to come.

If you are selected to participate in your region, you can expect to be given free access to the event all weekend, Matt Stone shirt and hat, all meals and drinks, and a once-in-a-lifetime opportunity to put your skills and attitude to the test.

Masters in Military Electronic Systems Engineering (M.Sc MESE) at Shrivenham

Captain Sam Pennifold

August of 2023, I was fortunate to gain a 12 month posting overseas to undertake postgraduate study at the Defence Academy of the United Kingdom, Shrivenham. The Masters in Military Electronic Systems Engineering (M.Sc MESE) I am completing involves 12 modules and a research thesis. The modules focus on developing foundation RADAR and Communication system understanding before applying these to practical Electronic Warfare considerations.

By the end of the course there is an expectation that a student is technically competent in the design or analysis of specific hardware and software related to such systems, but also appreciate the systems engineering approach required for acquisition and sustainment. To this effect, my follow on posting will be to Land Engineering Agency where I can best leverage these skills and knowledge in support to current in-service equipment or procurement of emerging capabilities.

Cranfield University currently provides the academic instruction for the Defence Academy, of which Army, Navy, Air Force and the APS have a number of positions each year in Masters level courses looking at Explosive Ordnance, Guided Weapons systems, Gun or Vehicle Design and Aerospace System Engineering. Although delivered by civilian lecturers, there is large relation of course content to current military applications and conflicts. While this might seem an obvious need, the lecturers here excel at remaining relevant within military context where other institutions often focus too heavily on the academic aspects.

One additional benefit of studying overseas is the proximity to foreign forces and the ability to discuss differing methodologies that countries employ to deliver similar effects. On courses currently there is a mix of US, UK, Canadian, Finnish and Chilean military personnel, with equivalent Defence civilians from many more countries. It has been eye opening to discuss ideological differences in country/service direction, troop and welfare management and logistics provision.

While we as Defence personnel are regularly expected to travel and deploy around the world often for extended periods. It is unique to be enabled to live within another culture, especially with your family as these are accompanied postings. This posting is allowing our cohort the chance to experience a White Christmas, a fact that some of the accompanied children are excited to experience. Additionally, an added bonus is that it is ridiculously simple to travel around the UK and Europe when in down time from the study. A fact many have already exploited in their time here.

With all the positive aspects mentioned above, I cannot ignore some of the difficulties associated in posting overseas. Just like posting back home, families must decide either to accompany or remain in Australia. Accompanying brings the complexity of finding schooling for children and work for partners, thankfully the Australian High Commission support our personnel heavily in these needs. Luckily many of the parents here have reported the schooling transition has been smooth and the children are responding well to the new environment.

A personal difficulty I faced in this posting was in the decision to bring my two dogs with me. This luxury is a personal expense which my wallet has not appreciated, but personally I'm grateful for the decision. While not the only Australian to do this, it feels like we have only just arrived yet 7 months out from returning home we have all had to commence Australian import procedures already.



Ren & Sapphire

Lastly, while all you reading this consider how you can negotiate with your Career Managers into giving you an overseas posting, I want to leave you with a few highlights of my posting so far:

- 1) Being invited to the Defence School of Electrical and Mechanical Engineering End of Year function. This is the home of the Royal Electrical and Mechanical Engineers (REME) based at Ministry of Defence, Lyneham.
- 2) Viewing Tiger Tank 131 during the annual Bovington Tiger Day. Captured in Tunisia 1943 this is the only still operational German Tiger I in the world. Its capture and analysis was instrumental in developing countermeasures to defeat Tiger Tanks during World War II.



Tiger 131

- 3) Attending Blenheim Palace, Oxfordshire. The 2000-acre property is the seat of the Dukes of Marlborough and the birthplace and ancestral home of Sir Winston Churchill.



Blenheim Palace

Regards from a chilly -3 degree evening.

So you want to be an ASM....

WO2 Jamie Harwood

Working as an Army technician, aspiring to be an ASM, is an admirable career goal. However, it is important to note that the path to becoming an ASM is not an easy one. In fact, less than 30-40% of your peers may actually get the opportunity to sit in an ASM seat, making it quite the accomplishment if you are selected. To reach this position, you will need to complete various career courses, specialized trade courses, serve in multiple areas of capability, and earn at least four positive PARs that confirm your competence to run a trade facility. It requires a great deal of effort and even being considered for the role should be acknowledged as an achievement.

But before I get ahead of myself, I need to send a clear message. ***Experiences may vary.*** Some of you will read this and think that it's way off the mark, some will recall fond memories of time gone by and others will read this and shudder while deeply repressed memories arise of times and places you'd rather forget. It's based off what I've experienced and what I know from my time as both an ASM in an Infantry Battalion and in an Ares CSSB. I apologise in advance if it's not what you expected and I acknowledge it may not align exactly with everyone's experiences. That being said, here's a few lessons I learnt along the way.

It begins with that phone call from CM-A. "G'day, this is your Career Manager, would you like to run a workshop next year?" For the most of us, it's an automatic response. Of course I want my own workshop. For others it depends on the unit you're being offered and the awareness of the responsibilities and experience you're predicting you'll have. Many ASMs in time gone by have regretted specific posting under specific command and the old and bolds have plenty of stories to tell about OC's and CO's that were famous for reasons good and bad. It's ok to decline the first offer and/or request another option if you have no desire in spending the next two to three years in a workshop you may think you won't enjoy. However most of us will grasp this opportunity and begin the process.

Once the posting order arrives, you initiate communication with the member you are replacing and the handover-takeover process begins, which often includes a relocation to a new locality. You set up your office, ensuring it is a comfortable workspace since you will be spending a significant amount of time there over the next few years, and the real work begins. However, be prepared for the work you encounter to not resemble what you expected. The obvious requirements such as MILLIS, Work Orders, MSTs, multiple lines of repair, JLU relationships etc. are already in progress and you would assume that you should never have to rectify or change anything. The maintenance system is already established and has been running for years! I was lucky and inherited a system that was well laid out and complete but you'll find that, not everyone will be as lucky. It's important to learn and understand the unit's specific requirements, its idiosyncrasies and the reasons behind the way your predecessors have conducted technical business. It's also important to know that you can maintain current processes and procedures OR you can adjust certain things to suit your methods, your new command and your experiences. And that's the first lesson.

**** You don't have to carry on everything from previous years, and if you believe you have a better way to achieve the outcome, then do it. You're the ASM now. But make sure you communicate the 'why' behind your decisions to the people it effects.***

From this point onwards, you will encounter many new faces: New Coy HQ staff, new OC, new TQ/RQ, a new Transport Manager and a NEW CSM. It is crucial to establish good relationships with all of them. Take the time to get to know their skill sets, strengths, and weaknesses.

Get together with the CSM and make sure you're both on the same page with regards to responsibilities and understanding how his requirements match your own between trade and regimental. One of the most important relationships will be with your new PL Comd. You're about to spend the next few years working shoulder to shoulder with this member and it's extremely important to get this right. Mentoring should be the key responsibility for you in this relationship as you help them learn to be a leader however, you also need to remember that they've just spent 18 months at RMC so there's probably a lot of new, up to date information that they will be able to help you with also.

**** The ASM – PL Comd relationship is vital for workshop success. Help them grow and don't be afraid to learn from them as well. Remember, this junior officer will likely be a senior officer for your peers or subordinates in a few years' time.***

Introduce yourself to everyone outside your company, including other Company OCs and 2ICs, SUEMs, the S4 and XO, and especially the RSM and CO. However, do not be discouraged if you do not have direct access to the top, as often emphasized in career courses. It has become increasingly common for Coy OCs to prefer a Line of Communication approach, and during my time in the Battalion, I rarely directly interacted with the CO. The RQ and I weren't even invited to the weekly CUB, which initially struck me as unusual. However, over time, I realized it was not as uncommon as I thought. This does reinforce the point however that, although we are responsible for technical maintenance decision-making within our own purview, we do not have jurisdiction over decisions at the company or unit level. We do not own the equipment, the workshop, or the personnel. We correlate and brief technical issues up and facilitate the command level appointees in doing their job. But always make efforts to be pro-active and get in front of potential issues. Don't be the person that only shows up after somethings gone wrong.

**** One of our primary roles is to manage, and brief technical risk to our command. It's their responsibility to be the decision maker. Even at lowest level, we don't own the risk. But being proactive in Comd engagement is one of the best risk management tools.***

During your time as an ASM, you will be expected to be the primary source of technical knowledge. In the past, it was common for members to serve in multiple postings at each rank level, allowing technicians to gain exposure to various combat corps, CSSBs, and other DCU/DSU elements. However, in today's peacetime Army, promotions can occur more rapidly, resulting in ASMs with limited exposure compared to their peers. Which leads me to my next point. I never realised how much I didn't know until I was expected to know it. A large amount of my time in the first six months as an ASM was learning technical information from areas outside of my original ECN. It is perfectly fine not to have immediate answers to every question. Take the time to seek accurate information and respond to your command accordingly. However, it is vital to acknowledge the need for personal growth. Stay updated on technical information and maintain awareness of general military requirements. Stay on top of various documents, including RODUMS, SOP updates, TABs, and more. Your internet bookmarks should be overflowing with links to all things technical. Figure out a way to ensure you see every RODUM that's released. Archive everything, including emails. Ensure you pay attention when the BDE ASM sends out updates. Talk with your peers about any issues they encounter and share your own.

**** It's ok to admit when you don't know something but it's not ok to neglect improvement in your own knowledge and skills. Maintain currency or you risk becoming irrelevant.***

One of the most important things you have access to is your network. The other ASMs around you, some of which are probably in the same situation, will be your most utilised tool. Be in touch with all of them, regularly. Go to the mess and chat with them at every opportunity. Attend all

production conferences and make sure you run your own. Be open to seeking your peer's opinions whenever needed. When in doubt, call the BDE ASM. Having that firm guidance from the senior ASM in the BDE often got me settled and pointed back on the right path, and their advice greatly contributed to elements of my own success. Never be too proud to ask for help.

**** Your TSN is your most valuable asset. Protect it and contribute to it and it will always look after you.***

Be prepared to wear many hats. Due to the manning issues we're encountering in the majority of trade facilities, you'll find that being an ASM isn't going to be your only job. You need to fully prepare yourself to be everything from the Admin SGT to the CSM to the PL Comd. You'll be expected to manage personal welfare issues, manage training requirements for trade and non-trade progression, process admin, mentor and guide junior officers, co-ordinate events for the unit that will be well outside your SME area, run range practises, lead entire log elements in field training, and many other random activities that your people will just expect you to be good at. Remember you have an entire workshop at your disposal to ensure that the Comd intent is met to its fullest capability in all aspects of military but also remember that if you don't achieve at the end, you're the one in charge. It's alright to ask for help and your allowed to let things fail as long as you've done your best to make it work. But you need to be the one that takes the responsibility for all outcomes, achieved or not achieved.

**** It's perfectly acceptable to delegate tasks to your subordinates but you can't delegate your responsibility.***

The role of ASM will demand time and cause stress. Avoid making the mistake I made by burning the candle at both ends in the first few months, striving to complete everything. Regardless of the effort you put in, there will always be new challenges tomorrow, and the world will not come crashing down if that email isn't finished tonight. If you're starting an hour early and not going home till six pm every night, somethings wrong. Don't shy away from having a serious conversation about time management with your OC. Work on setting some goals both personally and professionally. Confirm priorities regularly and understand what can be allowed to fail due to staffing and time constraints. Clarify the level of expected work and seek assistance in maintaining a healthy work-life balance. Don't forget what's most important, and that's your supporting element at home. They're going through the same issues as you but usually you've got it easier. You didn't have to find a new job, a new school, new friends etc. They've followed you so make sure it's worth it to them.

**** Postings will come and go. Your family are there forever. Make sure you focus on the genuinely important parts of your life when you're not wearing the uniform.***

Remember that you are the custodian of RAEME culture within your unit and it's genuinely the same old cliché. You only get out what you put in. Yes, that doesn't apply to some areas, as we know there are units and workshops out there that are amazing and, obviously, some that are at the other end of the scale. The efforts you put in will be directly reflected in the efforts of the people around you and if you do the work, your people will share that motivation and enthusiasm, often making the best of a bad situation. You will gain a lot from your time and usually you will enjoy the experience. That being said, it's alright to walk away from your time as an ASM with no intentions of taking on a role like that ever again. It can take a lot out of you and regardless of the good and bad, you're coming out the other side with a few more grey hairs. Remind yourself constantly that you have worked hard to get where you are and that not all of your peers are given this opportunity. Take advantage of the good times where they arise and make sure you always look after yourself in the bad times. Remember that the time you spend in the seat is only a small part of a much larger career. Ultimately, experiences may vary but being able to tell people that you were an ASM is worth it.

Employment as a Recruit Instructor at Kapooka

CPL Jade Numans

Introduction

Requesting a posting to 1 Recruit Training Battalion (1 RTB) as a Recruit Instructor (RI) is a fairly significant decision, in regards to career progression, remuneration and potential impact on lifestyle/relationships. As you're likely aware, employment as an RI is known to 'round out' a career and is seen as an excellent move for the career soldier. The unit's unique mission and environment offers employment for corporals, sergeants and lieutenants that deviates significantly from employment in the typical deployable unit. Unfortunately, information about 1 RTB can be unclear or entirely absent, making it difficult to make an informed decision when requesting the posting.

This article will provide a reasonably in-depth and honest overview of employment within the unit, from the perspective of a corporal in the full-time Army Recruit Course (ARC).

As with most units, the structure and operations of 1 RTB are in a constant state of flux, with significant changes potentially inbound, so only contemporary practices will be discussed. Where opinions are offered, those opinions are my own, not necessarily representative of all RIs and certainly not of 1 RTB as an organisation.

Prerequisites to employment as an RI

There are several courses that are prerequisite to employment as an RI (and consequent entitlement to RI allowances). Although these prerequisites can be temporarily waived, it is best to complete them prior to posting in, as an RI may be assigned to an ARC or Part Time Recruit Course (PTRC) early in the year. 1 RTB offers residential course packages in the second half of the year, for those anticipating posting in.

Courses that can be completed prior to march-in include:

- Military Instructor Course (MIC) - A five-day course run by Staff Training Platoon (STP) that has replaced the Recruit Instructor Course (RIC) as the foundational course for instructors.
- Small Arms Coaching Course (SACC) - A six-day course run by the Marksmanship Training Section (MTS).
- CAT 9A SGR Safety Supervisor - A one-day course run by STP that qualifies instructors to act as a Safety Supervisor for grenade range practices.

Courses that must be completed upon march-in include:

- Instructor Development Program (IDP) - A ~2-5 day course (self-paced) offered through ADELE that focuses on 1 RTB specific structure and operations and provides excellent guidance and examples for blueprint lessons.
- On-the-Job Training (OJT) - Essentially a checklist of activities that are conducted throughout the ARC or PTRC. Whilst they can be completed/signed off prior to employment as an RI where time permits, it is common practice to complete them throughout the conduct of the first session.

In addition, RIs need to be qualified in the LAID, LAIRD, BNVD and current in Army First Aid (AFA) and Tactical Care of the Combat Casualty (TCCC). These qualifications can be gained and recertified at 1 RTB if necessary.

RI allowances

Currently, additional remuneration for lance corporals, corporals and sergeants posted to 1 RTB, in instructor positions, comes in three parts:

- The Recruit Instructor Sustainability Allowance - \$8137 p.a.
- The Recruit Instructor Disability Allowance - \$9825 p.a.
- An additional paygrade - The specific amount is dependent on the RIs current rank, increment and paygrade.

As an example, I am an Energy Technician (Tech Elec), CPL on increment 2. I jumped from pay group 6 to pay group 7, grossing me an extra \$5036 p.a.

In my case, that's an extra \$22998 per year before tax. As discussed in the day-to-day sections, sometimes the RI is really earning that extra cash and sometimes they're really not. Overall, I'd say the remuneration is fair for the increased responsibilities and workload.

As aforementioned, the RI allowances are tied to some of the prerequisite courses – they can only be received once the individual has posted into the unit AND completed MIC and IDP.

Employment Opportunities within 1 RTB

The ARC run out of Alpha, Bravo, Charlie and Delta Company offers the vast majority of instructor positions for staff – which is the main focus of this article. The PTRC run out of Echo Company is similar, though with a higher tempo in training, less learning/assessment criteria and potentially a more balanced time in/out of training ratio. It is highly likely that staff will be placed into an ARC or PTRC position when posting in, however, there are a range of supporting sub-units containing roles for staff in instructional positions.

Sub-units in Recruit Development Company (RDC) include:

- Army Indigenous Development Program (AIDP) - Staff in this role administer recruits from indigenous backgrounds
- Army Pre-Conditioning Program (APCP) – Staff in this role administer recruits who require additional training to meet physical entry standards for the ARC.
- Digger James Platoon (DJs) - Staff in this role administer recruits that have been removed from training due to rehabilitation requirements, inability to pass fitness assessments or back-squadding.
- Weary Dunlop's Platoon - Staff in this role administer recruits separating from the Army, typically due to unsuitability, injury, or Voluntary Separation (VS).

Sub-units in Training Support Company (TSC) include:

- Staff Training Platoon (STP)
- Marksmanship Training Section (MTS)
- Medical Training Cell (MTC)

Although many complete their entire posting within ARC and PTRC positions, staff are encouraged to request roles in supporting sub-units, particularly in their second or third year at 1 RTB.

The 'Vibe' of 1 RTB

It is difficult to describe the vibe at Kapooka but for RIs it might best be summarised as “relaxed but professional”



Section Commanders Patrolling Hallway waiting for new recruits

At the battalion and company level there is strong acknowledgement that the RI role can be very demanding and that instructors in the unit are professional, capable soldiers. Headquarters staff understand that their role is facilitation rather than micromanagement and consequently platoons are given a high degree of flexibility and autonomy. This approach fosters an adult working environment, in which instructors are assumed to be proactive, willing to assist their peers and achieve the training outcomes required, unless proven otherwise.

At the platoon level, although instructors themselves, platoon commanders and sergeants understand that their primary role is in the facilitation of Junior Non-Commissioned Officers (NCOs). Where the platoon commander must make decisions affecting training or programming, section commanders are consulted and their input given significant weight. The relationship between platoon headquarters staff and section commanders is, once again, typically relaxed and friendly, though professional.

At the section commander level, the vast majority of staff are competent, mature and reliable. The all-corps environment provides a range of perspectives and experiences to draw upon and each section commander has interesting or important insight that is valuable to their peers. When not directly engaged in training, most section commanders are highly social, developing quality banter, in-jokes and generally looking for ways to make things more enjoyable or interesting.

At all levels there is a keen interest in staff welfare and sustainability, given the demanding nature of the RI role. In addition, personal progression is highly valued and it is very common for staff to complete promotion courses (notably Subject 1 Sergeant) and trade-specific ancillary courses during their posting. Other interesting opportunities do arise, for instance Cross-Rifles shoots throughout the year.

It is worth noting that 1 RTB has an incredibly low tolerance for staff failing to meet standards as instructors and staff or recruits acting inappropriately towards others. Aberrations result in swift action, sometimes including removal from the training environment. This low tolerance approach maintains a high standard, that facilitates the otherwise “relaxed but professional” atmosphere defining 1 RTB.

Day-to-day – In session

As aforementioned, the focus of this article is the ARC. For obvious reasons, we'll forego examining the course in extreme detail, rather taking a broad look at what the course entails. The best way to sum it up is that the ARC has an undulating tempo (from a staff perspective) and each course has minor variations to accommodate available resources and adjustments to the Learning Management Package.

The course is 83 days in total, from the day the recruits step off the bus at Kapooka, to the day they get back on the bus to head to Initial Employment Training (IET). The course can be very broadly broken down as follows:

- Week 1-2 – Drill lessons, communications lessons, external staff lessons
- Week 3-7 – Weapons packages, navigation lessons, initial field lessons
- Week 8 – Medical and TCCC
- Week 9 – Grenades, gas, navigation practical, Bayonet Assault Course
- Week 10-11 – Field
- Week 12 – Equipment refit, parade rehearsals



CPL Jade Numans (Tech Elec) after Bayonet Assault

Weeks 1 and 2 require all staff to be present from 0600 to 2200, to ensure that recruits reach the standard required. Although this period is pretty full on, a lot of lessons are given by external staff which frees up time for RIs to go to the gym, go for a run, sort out their section's administration or just have some down time.

Weeks 3 to 9 are less staff intensive and only one RI, known as the "driver" is required to be at work from 0600 to 2200. The other RIs will come in only as necessary – for example, two hours to give an F89 lesson or six hours to act as a safety supervisor at the range. The "driver" rotates, so that each section commander will typically be "driver" every four days. There are

three or four days, including recruit's local leave and the visit to the Australian War Memorial, where the platoon commander or sergeant will act as the "driver".

Weeks 10 and 11 require all staff for field, as would be expected and week 12 has a similar tempo for staff to weeks 3 to 9.

In addition, each company has a Duty NCO (DNCO), which equates to approximately one duty per month for each section commander, when all staff are available. RIs are not permitted to act as "driver" and DNCO concurrently.

As a rough approximation, a section commander could expect the following breakdown of days during an 83-day ARC:



CPL Rhys Bryce (Tech Elec) Yelling during field training

Required all day (16+ hours) – 28 days
 Required field (24 hours) – 10 days
 Required some of the day (2-8 hours) – 28 days
 Not required at work – 17 days

By the end of an ARC session, staff are certainly in need of a decent break. Breaks are typically programmed to be three weeks between sessions (although three weeks feels *just* too short), when the battalion is operating at maximum capacity. In reality breaks are dependent on a variety of factors and can be as short as two weeks or as long as several months. Where staff have a three week break between sessions, there is little to no

expectation that they will be in the workplace throughout that period, expected rather to rest and recuperate.

For new section commanders – the first session is the most difficult, with a moderate learning curve. A requirement to learn where everything is in the area and gain a general understanding of 1 RTB procedures will likely see them appear at work more than they are strictly required to.

On a broader scale, though not representative of all RIs, my year within ARCs will have looked like this:

- 9 Jan-30 Jan - 3 week preparation
- 31 Jan-24 Apr - 12 week ARC
- 25 Apr-16 May - 3 week rest
- 16 May-26 Jul - 12 week ARC
- 27 Jul-30 Oct - 14 week rest/Out of session tasks
- 30 Oct-17 Dec - 7 week ARC (finishing session after Christmas, relatively uncommon)

Day-to-day – Out of session

There may be times when an RI is not assigned to any session for an extended period. Once reasonably rested from a previous session, there is an unstated expectation that unassigned RIs will assist other active sessions. As previously stated, RIs are inherently seen at battalion and company level as proactive and willing to assist their peers. Consequently, support is typically not dictated by company or platoon commanders but requested by peers at the section commander level - via the DNCO group chat.

This system enables individuals to nominate themselves to support tasks and combined with an enduring “If you don’t need to be here, go home” attitude, results in a high degree of flexibility. RIs determine the days that they will work, enabling them to focus on priorities outside of the workplace as they choose.

Assistance will often be requested in the provision of the following tasks within the company:

- Medical assessments (2-6 hours)
- Weapon qualification tests (2-3 hours)
- Range safety supervisor (3-6 hours)
- Enemy party during field phase (3-8 hours)
- Bayonet Assault Course (2-3 hours)

In addition, whilst less common, opportunities to assist other companies and units do arise. In some cases, support is directed but this is typically in the provision of assistance to training units outside of 1 RTB.

Lessons given by the RI

Although the majority of instruction given by an RI is informal (ironing uniforms, setting up webbing, familiarisation with night fighting equipment etc) a heavy emphasis is placed on the provision of formal lessons. Formal lessons, categorised into three disciplines - Drill, Weapons and Field - are the primary assessment criteria for the RIB.

The Recruit Instructor Badge (RIB)

The RIB is awarded to RIs who meet the following criteria:

- Posted to 1 RTB for nine months
- Receive a Performance Assessment Review ‘At Standard’ or better, during the assessment period

- Assessed as 'At Standard' in six lessons, across the three disciplines, where the period between the first and last lesson exceeds 90 days

The Recruits

As might be expected the recruits coming into 1 RTB are from all walks of life, with a wide variation in culture, socio-economic background and aptitude. Most are fairly suited to the training environment once they've had the chance to adapt, although some struggle to meet standards and need additional training or in some cases back-squadding (most commonly for weapons, medical or the field phase). There are also the occasional (exceptional) recruits, who might have been better placed in the Royal Military College. In any case, those who are likely to be in the running for Best Soldier at the end of the session, can typically be identified within the first week or two – primarily by their attitude and approach towards training.

Other issues with recruits include poor attitude (lack of interest or motivation), not taking training seriously (class clowns) and mild racism or sexism. Whilst relatively uncommon, these issues can have a dramatic impact on other recruits in session and need to be rectified quickly. In addition to immediate fault correction, Trainee Performance Incident (TPI) reports can be issued, which can be used as evidence to back-squad a recruit or have them removed from training altogether.

In addition, general lapses in discipline will occur after big events, such as local leave or the field phase. However, by week three recruits are familiar with the standard required and given the appropriate stimulus, are quick to readopt discipline and standards.

On a more positive note, throughout the session recruits will unintentionally do and say hilarious things almost daily. These lapses in etiquette or comprehension become the basis for many in-jokes or entries on the "quote of the day" board in the section commander's office. On occasion such lapses will be so conspicuous or outrageous that even the most hardened RI will temporarily lose composure. These can be some of the most enjoyable aspects of being in session.

By the end of the session, RIs can take pride in how far their recruits have come and may even be sad to see them go, whether they admit it or not.



'Recruits will unintentionally do hilarious things almost daily' - How this occurred remains a mystery until this day

Work/life balance and job satisfaction

Plainly speaking, 1 RTB can consume the life of an RI, especially during their first session. Subsequent sessions become less consuming as forecasting workload and realistically appreciating time pressures becomes easier. As aforementioned, 17 days of the 83 in an ARC will not require an RI to be in the workplace. However, as the course can be particularly draining, many of these days will likely be used primarily for genuine rest. Furthermore, the undulating tempo of the course and rotating nature of "driver" and DNCO days, while predictable from the outset, make the availability of free time inconsistent.

This can make it difficult to commit to periodic social events or structured hobbies, such as team sports. Still, it should be noted that owing to the flexibility of the program and ability to exchange "driver" and DNCO days, motivated RIs continue to participate in sports such as baseball and rugby during sessions. This is also offset by the significant amounts of free time and lack of

necessity to parade during out of session periods, allowing RIs to focus on non-work centric commitments.

Whilst work/life balance at 1 RTB is questionable, it seems to have little impact on job satisfaction. The vast majority of RIs appear to enjoy or even love their role as an instructor, so much so, that it is very common for RIs to request a third year at Kapooka. This is possibly the best and most consistent indication of job satisfaction at 1 RTB.

The ARC provides RIs with a real sense of purpose, progression and achievement - pursuing a goal with tangible results and real-world impact. The course couples the rewarding feeling of developing individuals with interesting and enjoyable training. This is all in stark contrast to the all too familiar experience of a deployable unit, where one often has the sense of marking time without achieving any concrete outcomes.

Ultimately, 1 RTB (and the ARC in particular) facilitates a level of job satisfaction that is relatively uncommon in greater Army.

Issues worth noting

Although the majority of this article has shown 1 RTB in a positive light, there are some particular issues worth noting. These factors shouldn't necessarily disincentive a soldier from requesting a posting to 1 RTB, however, they are relevant to the job role and worthy of consideration.

- Changes to tasks at short notice are not uncommon.
- The training RIs receive before their first session is insufficient.
- 12 week ARC courses are likely being condensed to 9 week courses in 2024.

Conclusion

In summary, employment as an RI at 1 RTB is challenging but rewarding.



CPL Brandon Grimes (Vehicle Mechanic) and CPL Jake Vasey (Fitter) - Recipients of the Wagga Legacy Challenge Shield (Champion Section) in their respective platoons

The primary benefits of employment at Kapooka include increased job satisfaction, flexibility and additional remuneration. Developing civilians into soldiers is a rewarding process and the ARC offers a lot of opportunities to have fun and simply enjoy the job. The primary detractions are the occasional all consuming nature of the job and the inability to maintain a normal lifestyle and daily routine.

The instructional role is certainly not suitable for everyone, however, I expect it is suitable for more soldiers than realise it. Hopefully this article gives you the ability to make an informed decision on whether employment at 1 RTB would be suitable for you and your circumstances.

Good luck and good soldiering.

Women in RAEME event - Victoria Barracks Brisbane - Wed 11 Oct 2023

Peter Matthews



Peter Matthews, Crafties from 106 FD WKSP/9FSB, Margret (Maggie) Jlew, Holly Trigg, Hannah Polley, LT Bec Rasmussen, LCPL Amber Johnson-Brigg and COL COMDT QLD - COL Steve Evans

On Wednesday 11 October 2023, Victoria Barracks in Brisbane became the backdrop for over 30 members and guests who gathered to celebrate the Women in RAEME event. This first event which also supported the current 'Women in Uniform' exhibition at Army Museum South Queensland, which runs until the end of the year.



Guest speaker Suzanne Shipp

The event highlighted the role of women in the military and their pivotal role within RAEME. Since the Boer War, women have proven themselves as indispensable members of the ADF, contributing to the readiness and capabilities of our nation's defence. This event provided a platform to celebrate their achievements and promote diversity within Army.

Suzanne Shipp, our guest speaker, delivered a compelling address that resonated with all attendees. Suzanne joined the Army at age 16 as a 46th Intake Apprentice, completing Year 12 and went on to earn a Bachelor of

Engineering while studying at night part time. After being commissioned, she was appointed as an Engineering Officer, where she led a team that conducted flight line operations and maintenance of a squadron of military helicopters. She is an accomplished Executive leader and shared her experiences and insights, inspiring the audience with her journey and the challenges she has overcome.

The event at Victoria Barracks was not only a celebration of women's achievements but also an opportunity for networking. The diverse gathering allowed for the exchange of ideas and experiences. It was a platform for women in RAEME to connect, learn from each other, and forge stronger relationships that would further contribute to their professional growth.



CAPT Adele Catts leads the tour through the 'Women in Uniform' exhibition

The day would not have happened without the support of a number of people. A huge thanks to our Representative Colonel Commandant BRIG Ed Smeaton, our Colonel Commandant Queensland COL Steve Evans (and MC), Army South Queensland Curator CAPT Adele Catts and the volunteers at the Museum including RAQ Member Kingsley Pocock. Our RAQ Team of Bruce Hermann and Brian Daley provided our merchandise. A special shout out also goes out to Rowena Ferrarotto from Ironside Resources who flew up from Melbourne specially for the event.

The Women in RAEME event held at Victoria Barracks Brisbane will hopefully be the first of many occasions that we celebrate the contribution of women within the Australian Defence Forces, particularly in RAEME.

Antartica – Spanners on Ice

WO2 Ben John, Station Leader, Mawson Station,
Australian Antarctic Division, Antarctica.



RAEME Birthday Mawson Flag Station

It takes a long time to get down to Antarctica and about halfway through the cold, dark, spectacular winter it takes a long time to get home again. I first applied back in 2012 for the role of the Station Mechanic and was unsuccessful and rejected for one reason or another over the next ten years. In 2021 I was finally successful in my application as the Station Mechanical Supervisor (SMS), for which station I did not know, but I had to refuse as I was still on my final year of ROSO for the retention benefit.

In 2022 I was again successful through the selection process, partly because I had already passed all psych and technical interviews previously and it was a more relaxed atmosphere for myself. The only difference was the second time around, the selection centre wasn't overnight at a hotel but online, thanks COVID.



Auster Emperor Penguin Colony. Ben John and Eric Mulder

All our training takes place in Hobart and wider Tasmania, I started at the end of November before boarding the icebreaker Aiviq on 25 Jan 2023 and arriving at Mawson 20 days later. The smack in the face you get when you step out onto the back deck for the first time and feel the Katabatic winds rolling down off the ice plateau makes you rethink your choice of clothing immediately. Looking back at the weather it was only -4° and an average wind of 15kn that day, a temperature that I now break a sweat in whilst walking around thinking it's a beautiful day! During the middle of winter, we had a few days down below -30° which made anything mechanical resist starting as much as

possible. We spent one night at one of the island huts about 40km East of station proving a sea ice route to the local Emperor Penguin colony. Overnight the generators could not stay warm enough to continue running with ice forming on the air intake and choking the motors. We slept with frost on the inside of the sleeping bags that night.



FRT on the Sea Ice. I've also lost fwd momentum...

The training provided by the AAD is suited to directly prepare you for the role on station, no extra bits that are apart of some forgotten training plan are kept, if it isn't required, it isn't taught. A lot is aimed at the compliance side of an organisation to ensure everyone is correctly licenced to operate and perform their role. I was placed on earthmoving and quad bike courses as well as an in house Hagglund

familiarisation, which included swimming the vehicle through a local farmer's dam. Along with the powerhouse training and bulk fuel transfer procedures and fuel spill scenario training.

So how did a 40 year old WO2 end up at Mawson station in Antarctica as the Station Leader (SL) for Summer after applying for the role of the SMS (ASM). I came down and completed the winter season as the SMS and my secondary role was as the Deputy Station Leader. So when it came time for the incumbent SL to head back to Australia I was moved into the role and assumed responsibility for the 30 people spending the summer here, and so far I'm doing ok. Not excelling but not botching it up either. *(This was also a comment from my first year PAR as a SGT running the 6 Avn Ground wksp!)*



Mawson Trades Workshop under Aurora Australis

I joined in 2002 as a VM and did my time at VTW before seven years in Darwin completing OJT then a posting at 1CSSB and 1CER before heading down to Sydney for a posting at 2 Cdo and 6th AVN Regt. Within this there were deployments to Iraq, Afghanistan, East Timor, Indonesia and the UAE. Once the excitement of those southern postings quietened down, I did a quick two-year gig as a SGT up at 51 FNQR and then came down to LEA at Vic Bks Melbourne.

This is where it got tricky, I am on LWOP whilst down here for well over 12 months. The secret to getting LWOP approved for so long is communication. It may have been said at every career

interview to keep your chain of command informed of your future ambitions, and in turn keep your career manager up to date, as it is ultimately their decision if you will be granted the golden hall pass!



Mawson Trades Workshop under Aurora Australis

I'm not alone here when it comes to Defence personnel. There is serving and ex serving members throughout the division at all levels. The GM of operations is a 46th class and Eric Mulder is a 40th class who came over from Davis Station from a Summer-Winter trip and is doing another Summer here at Mawson whilst I do the SL job. We have current serving reservists here on station for the summer; Sig Robert Putto is down completing the ICT uplift on defence time and in the Greenstore (Q-Store) LCPL Ryan Thompson is a driver from 13 CSSB in Perth looking after all our logistics. We have Robyne, an ex RAAF air traffic controller now working with the BoM. And Alan who used to be a civilian contractor mechanic working over in Perth on the Navy SOVs.

And a challenge to everyone out reading this: Who has the most isolated picture of the RAEME flag in the world. Mine: 67°21'49.7"S 59°27'34.6"E William Scoresby Bay, Antarctica.





Lights under the ice on the Plateau in Antarctica



Looking majestic near Taylor Glacier Antarctica

A year at Casey Station, Antarctica

Redmond Hastings

It's a massive leap of faith to leave friends, family and loved ones behind to pursue the dream of working in Antarctica and testing yourself to see if you've got what it takes to last in the depths of a Southern Winter with no opportunity to escape. Though I'm sure that's not a completely foreign concept to the readers of this fine publication.

After transferring from ARA to ARES at 51FNQR and then finally scoring this long-term goal of mine, I had high hopes of new experiences and adventure, and I was not disappointed (the change from the tropics to the ice was a shock to the system). Although I was caught off guard when I came down to Hobart to start working for "The Div". What can I say? It's very...Government. To say it politely. But we push through these things in order to get down South, you've just got to treat it as part of the screening process I figured.

Landing on the Ice is an assault on the senses, one moment you're in Hobart boarding an early morning RAAF C-17 on the tarmac the next your struggling to walk in a straight line through the wind, drifting snow and cold to get to the Terra Bus for the 3.5 hour trip down to the station.

As soon as you arrive on station its straight into briefs and handovers with the out-going crew. Understandably, as I was to find out for myself, they're very keen to get it done so they can get home. The summer is always hectic on the stations. There are projects, resupply, science and maintenance to be done. It carries on at this frenetic pace until late February when the last of the 90 something summer expeditioners finally leave.



Winter crew of the 76th ANARE

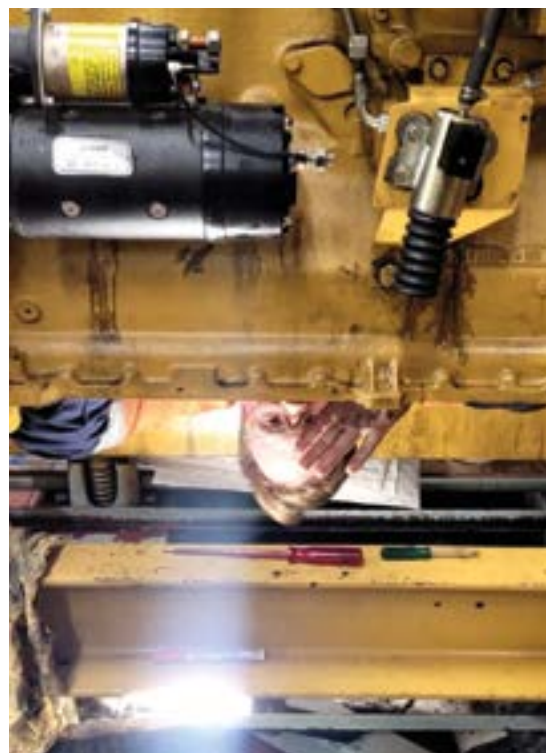
The winter crew of 35 took pause to breathe a sigh of relief after the last flight left. We moved into a more relaxed atmosphere with a more relaxed work tempo. I had taken on extra duties as a Lay Surgical Assistant, responsible for assisting the Doc in treating patients and medical care.

From all accounts we had a doozy of a year. Huge numbers of operations, there was a split head needing stitches, suspect skin spots that needed removal, a partial finger amputation needing surgery and a mammoth effort of a medevac in the dead of winter using helicopters launched from the RSV Nuyina.



D7r in the workshop for annual maintenance

The work was challenging; the conditions were harder. Every month as we headed deeper into winter brought new definitions of cold. The most memorable of all would be removing dozer blades off of CAT D7s outside in -35°C in order to fit them in the workshop for their annuals, I had to remind myself on several occasions that I did in fact sign up for this and I had no-one to blame for this but myself. conducting a bearing roll on a Cat 3306 in the main power house



Red Hastings upside down



Jack McLeod and Red Hastings 01 Dec 22

We all made some new friends, for life I dare say in some cases and reconnected with old ones. Not long after joining the Program I found myself standing next to Jack McLeod whom I haven't seen since Latchford. Its always good to know that even after not having seen each other for a decade old Army mates can just pick up the pieces where you left off and start again. The season would be a poorer one without his presence.

It was truly a once in a lifetime experience. If you're up for a challenge, I recommend you have a look into it. I've never felt more sure to say; I am a lucky man.

Redmond Hastings
 Vehicle Mechanic
 Enlisted: 25 Jan 2011
 Discharged: 19 Feb 2021
 Postings: ALTC, 7CSSB, 6ESR, 51FNQR



Jack McLeod reporting for duty on his 30th Birthday



76th ANARE mechanical team



Entering the water for mid-winter swim



Red observing the aurora



A Herman-Nelson melting out an excavator after being left in a blizzard



Mechanical team dipping their toes into tow rag territory-righting sleds flipped by a 100+ knot

Glory Days – A Sqn TST 5th Aviation Regiment

Mark Purvis

RAEME Aircraft Tradesmen 2nd Reunion.

Over the weekend 17th – 19th November 2023 former members of 5 Aviation Regiment gathered in Townsville to remember, reflect and reconnect with people, some of whom they hadn't seen since serving in the Regiment in the 1990s.



In 1987 the then CDF MAJGEN Bennett announced that the Australian Army via the Army Aviation Corps would take responsibility for operating all helicopter assets, except the C Model Chinook fleet, in the ADF inventory. The 5th Aviation Regiment was raised on the 20 November 1987. This decision had a significant impact on Army Aviation and supporting RAEME units. Over the next 18 months 9 Sqn RAAF, based at RAAF Amberley accepted 6 Blackhawks into service. These 6 aircraft and members of 9 Sqn along with several RAEME Aircraft

Tradesmen posted to 9 Sqn arrived in Townsville in December 1988. Early in 1989, 9 Sqn RAAF was disbanded and A Sqn was raised. The unit consisted of both RAEME Aircraft Tradesmen and RAAF personnel. Due to the rapid expansion of the Army's airmobile capability and the need to achieved Full Operational Capability as soon as possible the TST worked hard in providing serviceable aircraft for tasking and training. The Dogs emblem was adopted to reflect this situation (Working like Dogs).

Fast forward to today and with the rapid acquisition of M Model Blackhawks and Apache helicopters a decision was made to take A Sqn off the Order of Battle until 2028 when it will be reequipped with new M Model Blackhawks.



The first Dogs reunion, held in Townsville coincided with the 75th RAEME Birthday celebrations that were hosted by 5 Aviation Regiment over the period 1st to 3rd December 2017. The first reunion was thoroughly enjoyed by those that attended. In June this year planning was initiated to hold a second reunion, to coincide with the withdrawal of A Sqn in December, for former members of 5 Aviation Regiment who served in or supported A Sqn TST during the Blackhawk years. The theme of the reunion was Bruce Springsteen's Glory Days.

This reunion was also held in Townsville over the weekend 17th to 19th November 2023. The event attracted a very eclectic and enthusiastic group of former members. As the author's wife says, we gather to tell stories that only we would believe. Our collective and individual experiences whilst serving with the 5th Aviation Regiment are in many cases quite unique and not readily understood in a civilian context.

On Friday morning some of us visited 5 Aviation Regiment. The visit focussed on the Historical Collection in RHQ and the A Sqn Flight Line and Hangars. There have been significant capital works since the 1990s with each helicopter now housed in individual shelters. A far cry from working in the hot Townsville summers sun during the 90s.



The meet and greet at the Seaview Hotel on Townsville's Strand on the Friday night was well attended and many friendships were renewed. Many wore their Dogs shirts so that we could recognize each other. A very good night held in a familiar and old stomping ground.

On Saturday many took the opportunity for some welcome R&R and catch up with mates.

Saturday nights dinner at the newly renovated Empire Hotel in South Townsville allowed more stories to be shared, embellished and enjoyed by the kennel of Dogs.



Sunday morning saw some of the Dogs gather at the Blackhawk memorial in the Townsville Palmetum Gardens for a memorial service to remember those lost in the 1996 June 12th Blackhawk accident at the HRTA. The service was conducted by the current 5 Aviation Regiment Chaplain, Padre Frank Langford.

The service was followed by a Dogs breakfast on the Strand.

Former members travelled from Perth, regional Victoria, NSW, SE Qld and locally to attend the reunion. Many commented on the good times they shared and were very happy to recall, reflect and remember their time at 5 Aviation Regiment. Collectively these RAEME Aircraft Tradesmen (Dogs) made a very significant contribution to delivering an enduring Airmobile capability for the Australian Army and our nation. We can be justifiably proud of this achievement.

The weekend was a wonderful opportunity to catch up and with many vowing to return for future reunions. Planning is underway to hold a Dogs reunion in 2026/28 in SE Qld.

To those who attended the reunion thank you for taking the time to travel, in some case significant distances, to ensure we all had a great time and banked more memories to recall into the future.

A Sqn TST Dogs



OPERATIONS

Operation Solace (Somalia) 30 years on



1 RAR TSP 'OP Solace' 1993

Most people in the wider ADF only know of the events in Somalia in 1993 from the popular Ridley Scott film 'Blackhawk Down'. However, leading up to the event of Operation Gothic Serpent, the United States-led a Unified Task Force (UNITAF) which was a United Nations-sanctioned multinational force which operated in Somalia from 5 December 1992 until 4 May 1993. The ADF was to deploy a Battalion Group (BnG) centred around the First Battalion, Royal Australian Regiment (1 RAR), the mission was simple, to create a protected environment for conducting humanitarian operations in the southern half of the Republic of Somalia.

Roll the clock back 30 years to December 1992, members of 3 Brigade were preparing to go on well-deserved Xmas leave, the then Prime Minister of Australia, Paul Keating announced the deployment of an infantry

battalion, including supporting elements. This was to be the largest deployment of Australian troops since the Vietnam conflict.

3 Brigade soldiers wondered which Battalion would deploy, as this sort of operation had never even been considered; create a protected environment for conducting humanitarian operations? At that time 1 RAR was a light infantry battalion, with only light weapons and only a small internal transport element.

We were all recalled from leave, one of the members of the platoon who was in a hurry to return to the battalion had a small altercation with the local law enforcement agency; whilst another had to return from picking mangoes.

Word finally came down that 1 RAR was going to deploy. With that came every possible pers and equipment check ever thought of, inspections were carried out and it was hilarious to watch the young infantry soldiers with the worn in gear being told to exchange their worn out clothing and equipment. Most did however there was the odd "I don't want to look like a jube" heard coming from the infantry lads. A scalpel through the unserviceable/worn-out equipment soon solved all disputes.

There were several funny moments throughout the pre deployment activity, one was the official passport photographs, the entire battalion had their picture taken on one day. This meant that the one civilian shirt in the battalion was worn by almost everyone in the unit to have their picture taken. In the North Queensland summer, this was not a pleasant experience. The member that had been doing the mango picking didn't know that he would be allergic to mango sap, hence a puffy faced individual was featured in his official passport photo.

The battalions' vehicles had to be inspected and sea prepped for the voyage, the HMAS Jervis Bay was the first of two ships to arrive in Townsville, the loading process involved not only the

battalions' vehicles, the APC's from B Squadron 3/4 Cav, the vehicles from the BSG (Battalion Support Group), 18 Field Squadron and 4 Field Regiment. The Jervis Bay departed Xmas eve with Alpha Company, 1 RAR on board along with two members of Tech Spt as well as the BSG. HMAS Tobruk arrived in Townsville after the Jervis Bay departed, with loading of the BnG equipment, however due to a miscalculation regarding vehicles sizes, several vehicles had to be removed, resulting in a very rapid redistribution of their loads.

With the unit's equipment now on ships and on its way, we were then given in-country intelligence briefs, that went through the process of outlining the state of the Somalian armed forces, who we were told had been supplied by both the Soviets and US since the late 1940's. We initially thought we were going up against a well-equipped modern force. However, we also had a presentation from a Care Australia representative who put all our fears to rest; we would be dealing with militias and bands of predatory bandits.

The BnG departed in two groups in mid-January, chartered QANTAS 747's no less, with a few of the Tech Spt lads being seated in business class due to the infantry not wanting an administration company mixed in with the pride of the regiment.

Once again, even in the middle of a serious deployment, there is always a funny side, one of the members of Tech Spt forgot to leave his issued bayonet on the aircraft (which was being refuelled at the time), which meant bringing it through the x-ray machine at Changi International airport to get back on the plane. A very big please explain was required as the airport authorities refused to let the member back on board.

We arrived at the Mogadishu (capital of Somalia) international airport to what could only describe as a scene from Mad Max 2, bits of Soviet and US aircraft lying about the airfield. Once we had been shown our accommodation for the night, we all looked around the remains of the airport. We came across another of those "what the moments", lying in an aircraft hangar was a Soviet Mig 17 with the canopy missing, there was a hole in the hangar roof straight above the Mig, with what looked like the perfect trajectory for the ejection seat. Apparently, someone had jumped into the armed ejection seat and propelled themselves out of the plane and the hangar! Once again, a perfect "WT?" moment!



Gary Kirkpatrick at Mogadishu Airport

The BnGs Area of Operations was centred around Baidoa. The BnG deployed to the Baidoa Air Strip located on the outskirts of the city. Tech Spt made do with a half-destroyed building, although it did have a concrete floor and walls, that was a start. A few tarps from the GMV's fastened to the walls made it a perfect home away from home. In typical Army style once the tarps came out the heavens opened up; as tarps are perfect for collecting water, one of them began to fill up. One of the more enterprising members of the platoon (the

boffin) decided to put a small hole in the tarp, in an instant this hole became a 5 metre rip. The culprit was instantly drenched and he was called a few descriptive words and asked why the did you do that; only for him to say I would do it again to save my workshop equipment. Most of our pers gear got soaked, but all his workshop equipment stayed dry!

We all thought we had secured a prime real estate, as we were right across from the kitchen. That was until the kitchen caught fire, destroying the kitchen which included all the catering platoon's



The tarp and rain

constructed courtesy of the US Seabees (naval construction engineers). We were also left plenty of off cuts so we could make desks, shelves, etc to make the place a bit more habitable.



FRT Orders



Reorg Post Ambush

vehicle breakdown. As per the FRT orders, action on ambush, drive through, return fire and reorg, which they did and it worked!



Scotty Burden and the washing machine

personal gear. We all stood outside and watched in amazement and laughter as it burnt with cans of food being propelled into the air as they exploded. This hilarity ended quickly when embers from the fire were blown across the road and on to our roof (tarps). Someone yelled our roofs on fire, which resulted in panic as we grabbed the GMV's fire extinguishers to extinguish the burning tarp. There were a few tense moments that day. The destruction of or tarps left us without a roof! This meant that most of the building would get a new roof

Now that the BnG had settled into our new home/workshop, it was time for the battalion to begin convoy escorts, provide security at food distribution points, etc, so as always RAEME was on call to provide FRT's as required, most FRT's consisted of a RAEME supplied escort vehicle (ASM's Land Rover) with either the fitters or vehicle mechanics GMV going out on task. Not only did we conduct on call FRTs, we also went on many day and night foot patrols through Baidoa.

My first night patrol was as the number 1 scout, although I did have the only set of NVG's in the section, that wasn't of much comfort. Many times I have seen soldiers roll their eyes when hearing the phrase, you're a soldier first, tradesman second, however this fact was hammered home to us in Somalia. Especially when four members of the platoon, Huck Berry and Andrew Goss in the GMV TS4 and Scott Burden and Gary Kirkpatrick in the escort vehicle (Unimog) were ambushed enroute to a

With so much old military equipment lying around abandoned/captured, it was only a matter of time before some of the crafties decide to manufacture some items to make life more comfortable, reading/work lights utilising the old map lights fitted to the 110 Land Rover powered by a 77-set battery were very popular. The next item was a hand operated washing machine made of an old signal cable roller and ammo box as the washing machine lid cut in

and sealed, and made the perfect washing machine, proving to be a very popular item. One of the many “washing machines” were taken back to Australia and now resides in the Australian War Memorial.



Huck and his Fridge

Huck Berry decided to make a fridge utilising a 44-gallon drum, an old blower fan and a windscreen washer pump salvaged from a long-abandoned vehicle. He had some of the members of Tech Spt to help make this fridge. He had Tech Spt storeman Nathan Davis do most of the work on the fridge as he didn't have much to do as a storeman and it worked for a while. We would attempt make anything for the price of a carton of coke!

With ANZAC Day fast approaching the Platoons armourers were tasked with constructing a suitable ANZAC Day memorial, weapons were not a problem because of the huge amount of weapons captured by the BnG. So, the finished product was two Lee Enfield .303s mounted over a Bren Gun, with a slouch hat (made out of a ration tin), a very fitting memorial. The guests of honour were the members of Turkish armed forces. This memorial was present at the BnG 30-year reunion.



CPL Andrew Clarke and CFN Andrew Bennet with ANZAC Day memorial

Halfway through the BnG deployment, the new ASM, Phil Jarret was called forward and the previous ASM Bomber Lancaster returned to Australia to proceed on posting. The arrival of the new ASM brought with it renewed vigour within the platoon (a new broom sweeps clean). By that stage the morale within the platoon wasn't the best due to internal rumblings. The new ASM then tasked two of the platoon's jokers to put on a comedy night which included Paul Salters birthday celebration. Simple things like bad jokes coupled with a birthday cake went a long way too raising the morale.



Crafties up to no good

An interesting confrontation occurred once Phil Jarret had settled in, one of the vehicle mechanic crafties mentioned to Huck that, “Corporals are nothing more than over paid Craftsmen “. “Really” came the reply from Huck,” how would you like to run the next

FRT”. Huck had a few words to the ASM and ask if this particular craftie could run the next FRT after some training. A few days later, the platoon was tasked with another FRT, the craftie was asked if he wanted to lead the mission. “Yes, how hard can it be” was his reply. The ASM went as a crafty, so he could take over if things went wrong.

Note: the ASMs last posting was RAEME Training Centre (now ALTC) running Subject 2 courses.



Land Commanders Visit to Tech Spt

The FRT commander gathered his troops gave them FRT orders, ensured the parts, tools, maps, radios, etc. were in the GMV and escort vehicle. When he was happy (as well as the ASM and Huck) off they went. The hours past, the FRT was completed and all returned safely. The Crafty FRT commanders first words to Huck was "I didn't realise the responsibility and pressure you corporals have". End of story.

The BnG deployment was ending, there were high hopes that 1 RARs sister Battalion, 2/4

RAR would deploy and provide relief in place, however this never happened. The 1 RAR BnG was to redeploy back to Townsville, so the stores were cleaned, inspected and sealed in containers for the trip home, the engineers set up a wash point in Baidoa so that vehicles and equipment could be pre-cleaned prior to the AQIS (Australian Quarantine Inspection Service) inspection. The pre-cleaning meant stripping down vehicles washing all of the Australian training areas off the vehicle, for the M113's/plant/large vehicles, this would prove to be very challenging.

Once pre-cleaning was completed, the vehicles were repacked and the BnG gradually deployed to Mogadishu for the final cleaning/AQIS inspection and loading of all the equipment for return to Australia.

The BnG returned home via RAAF air (not QANTAS this time) to a warm welcome from our families as well as the larger Townsville community. After a few welcome days off, it was back to work ready to receive all the equipment that had been returned via HMAS Tobruk and Jervis Bay. Vehicles had to be repaired/refurbished, stores accounted for, gear which had been left/donated had to be replaced, so once again, the loggies work is never complete.

Looking back 30 years to the deployment, I feel very lucky to have been part of this unique group of Australians, we had deployed into an unknown environment, conducting tasks that were unusual and challenging. Many times, whilst in Somalia I had seen instances of the RAEME crafties having to improvise in order to get the job done. Whilst it may not have been TRF compliant, it worked!

The 1RAR BnG was actively involved in enforcing security in its assigned Humanitarian Relief Sector at inland Baidoa. This enabled the safe delivery of more than 8000 tonnes of humanitarian relief supplies. Throughout its deployment the 1RAR BnG was involved in numerous contacts with Somali gunmen, during which a number of Somalis were killed or wounded. Many others were detained and the confiscation of weapons was commonplace. One Australian soldier was accidentally killed in April.

Last Thought

Was OP RESTORE HOPE a success? To answer this question, it is worth considering the reflections of Mariam Arif Gassem, a Somali woman who lived through the tragedy of her country's descent into anarchy and who observed in her book titled 'Hostages, The People Who Kidnapped Themselves', that:

When UNITAF went back home in April 1993, most of the Somali people were beginning to be properly fed and medically cured. They were ready and willing to begin the normal activities of life and provide directly for the needs of their own families. Farmers started to grow crops, schools, hospitals and markets were re-opening, but everybody was aware that anarchy was only partially

and temporarily somewhat bridled, and only then during the presence of UNITAF. Their departure was to see those fires of chaos re-ignite, for they were never totally or even seriously contained

A month after UNITAF's departure, disorder and insecurity returned to Somalia and before long the world's attention was again focused on Mogadishu following the 'Blackhawk Down' incident of October 1993.

Members Deployed

WO2 Bomber Lancaster ASM
WO2 Phil Jarrett ASM (called forward 1/2 through)
CPL Harold Huck Berry VM
CPL Andrew Clarke Fit
CPL Peter Chalker Fit (on detach 3 CSSB)
L/CPL Jim Grindrod VM
CFN Shane Scott VM
CFN Darryn Hall VM
CFN Scott Burden Fit
CFN Andrew Bennet Fit
CFN David Dick Fit
CFN Nathan Davis Storeman
CFN Adam Bruhn TEGS
CFN Paul Salter TECH Elec
PTE Gary Kirkpatrick Inf OJT

Members Not Deployed

CFN Jamie Walters Fit
CFN Mark Payne VM
CFN Glen McFarlane VM
CFN Paul Klieve TECH ELEC

OP Solace 30th Anniversary Reunion

The 1 RAR Op Solace BnG has held regular reunions every 5 years and in true 1 RAR style, the 30-year reunion was a very big event. It was held at the Governor General's residence in Canberra, hosted by His Excellency the Honourable David Hurley Governor General of Australia, who was the Commanding Officer of 1 RAR during the deployment. Out of 1500 who deployed (all services) approx between 500-600 members attended the reunion, not a bad effort.

Also part of the 30-year reunion, the 1 RAR BnG lead the ANZAC Day parade in Canberra on ANZAC Day.

And lastly, the Department of Defence announced in January 2024 that all ADF personnel who served in Somalia between 1992 and 1995 have been awarded the Meritorious Unit Citation (MUC) for their service.



The ANZAC Day Memorial Constructed in 1993



Andrew Clarke, Huck Berry & Jim Grinrod



Huck Berry, Governor General David Hurley & Jim Grinrod

A/B Squadron 3rd Cavalry Regiment: LAD Nui Dat Vietnam

In The Mud and The Blood and the Beers.
(Oh well! Mud and beer)



In a modern, state of the art service centre, technicians work on a customers' vehicle. In fact, it is Nui Dat, Vietnam and it is the middle of the wet season. 1970. As you can see, there are a few things that make work a little difficult. Mainly mud. It usually started raining in mid-afternoon and kept going all night. Much later we got a lovely concrete surface to work on.

Using one of the LAD's Work Vehicles, a group of Craftsman Motor Mechanics perform a transmission replacement in an M113 APC. A difficult job in the best workplace, it is made harder by the wonderful mud sticking to everything and the extreme humidity.



A Mechanised unit such as a Cavalry Regiment could not survive in a theatre of war without the LADs.

No such luxuries of knock-off time and finish tomorrow. The job has to be done as quickly as possible. Some of the Craftsmen in the photos are (possibly) Mike Taylor, Allan Edgelow, Wayne Back, and Wayne Scott.



Ian (Gunz) Munro (2792145) Craftsman. I served briefly at 2 Base Workshop Battalion in 1969/70 when I was transferred from Infantry to RAEME. I was then posted to 3 Cav LAD in Nui Dat until discharge in 1971. I also served with Capt Digweed, CSM Ken Roughly. Capt K Tunbridge and Sgts Hann and Morrison.

Two ten mills and a 'ring in' spanner - Timor Leste

Peter Matthews



Old RAEME Workshop site Dili 2022

It's not often you get to visit a place where Australia had a major involvement during the armed conflict in East Timor with INTERFET and UNTAET. So this trip in October 2022 was somewhat a privilege for me to follow my two best mates, Ty Bodle (44th Appy) and Shad Marsh (37th Appy). A place they last visited and met during the early stages of the conflict in late 1999 and early 2000.

Like all good ideas, this one started months ago over a few beers and from there the planning was set and the trip locked in for October 2022.

The day arrived when we departed Darwin on the leisurely Air North flight of just over an hour, arriving in Timor-Leste to a bright and some-what hot October day. The airport is rudimentary and there's a \$30 arrival tax for tourists that needs to be paid in cash, US dollars is the local currency. The lads tell me the last time they were here things were not the best (and smelly), this time the smell had gone.



Dili traffic 2022

After working our way to Hotel Timor in the centre of town, our base for the trip, we were down to the serious business of planning what we actually wanted to do. Over a few beers in the Hotel pool, the plan was sealed with trips to all the places Australians were based; Balibo, Bacau and around Dilli. Comms on the trip wasn't really a problem, the mobile phone network works well in the major centres. SIM plans start at around 50 cents a day with included data.

Dilli, well what can I say, this is Timor Leste's vibrant hub, with a population of around

220,000. There are a lot of children and young adults around going about their daily business and most people speak Portuguese and little English, so google Translate is a must. The dominant faith is Catholic, and despite the hustle and bustle, on Sunday everyone appears to go to church and spend this as a family day.



Coastline and scenery in Timor

We hired a driver for the next couple of days (highly recommended) to take us around and generally costs a little bit at around \$150USD per day plus fuel. Timor Leste is mountainous with valleys dominating the landscape. The roads wind along the coastline to Balibo and Bacau are simply breathtaking in spots. Mountains literally disappear straight into crystal-clear seas. Large river systems run along ravines and there are very long modern bridges spanning these. We did see a saltwater crocodile in one of the rivers, so best not to swim there.

Both Shad and Ty remarked how the perilous trips to each centre used to be an all-day and overnight event in a GMV, Mack or Unimog; including some recoveries along the way. These roads are now mostly highway standard and take only a couple of hours in a standard 2WD vehicle or Scooter; which is the local mode of transport.

Once you hit the small coastal village of Batugade the path swings inland for the last 15 kilometres to Balibo. The roads deteriorate quickly into various degrees of 'tracks'. There are plenty of the cattle, goats and dogs on all the highways and roads. They seem to ignore the traffic, but once you toot the horn they move out of the way so you can drive past at any speed without hitting them, very smart animals indeed!



Shad, Ty & Pete at the entrance to the Balibo Fort

Once at Balibo, you can see immediately see why it was such a strategic town, this has been the case in all conflicts over the decades. The old Portuguese Fort, now a guest house and hotel sits atop a mountain and commands views across the valleys below and out to sea. A place that coast watchers used to report on Japanese ship movements during WWII. We bumped into 30 Australian Soldiers from 8/12 Medium Regiment based out of Darwin at Balibo, they were providing training to the Timorese Defence Force.



Australia Flag House, Memorial and Dental Clinic Balibo

Balibo has a significant history, five Australian based journalists were killed there on 16 October 1975 during Indonesian incursions before the invasion. The 'Australia House' is a must visit, there is a small but important historical record there and an Australian nurse operates a local dental clinic. The trust also operates a great museum set up in the old Fort jail worth viewing and of course lunch in the Fort grounds. There are tables and chairs set up to catch the cool sea breeze. The best pizza in Timor can be found here, enjoyed with a nice cold Bintang for \$1USD each.



The next day we headed 140km east to Baucau, which is the second largest city in Timor Leste. It is a town of around 16,000 people, which is sort of split in two, part of it sits on a plateau near the airport and then there is the part that spreads down to the sea and along the coast. We managed to drive around most parts of the town and actually came across an old abandoned UNTAET Land Rover Discovery, broken down (of course) on the road and left rusted and abandoned. Apparently, a number of these were left when the UN pulled out.

For many years now the Australian government and ADF have provided infrastructure support

and projects to the military base there and indeed around the country including ongoing training. The Baucau Airport, which sits mainly unused, has a very long runway at 2500 metres, making it perfect for its eventual rehabilitation as a commercial hub.



Old Workshop site Dilli 2022

Back in Dilli we visited a number of former RAEME workshop sites which had changed completely since Ty and Shad were there last. Many of the buildings gutted by fire during the conflict have now been rehabilitated and many used as government offices. One of the rooms Ty lived in, is now a Timorese Ministerial Office and the room Shad lived in, is also a well-furnished (and air conditioned) Office.

The Port is in various states of disrepair. Many will remember it from footage of where the HMAS Jervis Bay used to tie up. We got to visit the building Ty spent several months in.



Dilli Port 2022

Interesting there was a group of young workers in the room and they could not believe people actually lived in the building! Alas the RAEME mural there that many who served would remember has been painted over.



View from the Cristo Rei statue, looking back towards Dili

A modern container port has been built 12km west of Dilli and is the new shipping hub for commercial shipping activity. The 'Old' Port is more now for passenger services and is destined to be refurbished as a tourist and passenger hub at some point in the future.

Now any trip to Timor there is a must do and it's to climb the 570 steps (yes we counted them) to The Cristo Rei of Dili (Christ the King of Dili) statue, which is a 27 metres high statue of Jesus Christ situated atop a globe at Cape Fatucama. Now I must say anyone that



Selfie at the Cristo Rei statue 2022

knows me, knows I'm not one for physical exertion, so on the 'encouragement' of Shad and Ty I attempted the climb. I felt a little embarrassed at being passed by quite a few pregnant women. Apparently, many make the pilgrimage and pray at several alters along the ascent. I prayed at every step I would just make it up alive!

Thanks Shad for all your words of 'support'. Hah, I made it!

All too soon the trip came to an end. Timor isn't as well known for tourism as some of the other popular destinations, however given its proximity to Australia, it's a perfect place to visit. Whilst English is not spoken by many, we were made to feel welcome and we always felt safe. Anyone under about the age of 25 doesn't remember the conflict, however for those old enough who do, it was very touching as they thanked Ty and Shad and were grateful for what Australia did to support their country during the conflict.

Timor Leste and Australia have a great relationship and specifically there is a Defence Cooperation Program. This program focuses on developing capabilities in English language skills, maritime security, engineering, logistics, infantry skills, strategic policy, governance, finance and communications. We also bumped into a number of AFP officers who are providing support through the Timor-Leste Police Development Program.

Would I recommend going, absolutely. Thanks Ty and Shad for inviting this 'ring in' spanner on the trip!

UNIT JOTTINGS

1st Armoured Regt

1 ARMD REGT Exercise Super Garuda Shield 2023



For the first time since the Vietnam War, this year the Australian Army had the opportunity to deploy Main Battle Tanks onto foreign shores in two separate locations within the Indo Pacific region, with the first contingent hitting the ground to be 1ARMD. This deployment wasn't fuelled by anger, but by open arms, aimed at building and strengthening a mutual relationship with our closest northern neighbour, Indonesia. 1 ARMD REGT received an invitation to participate in Exercise Super Garuda Shield 2023, supported by B Squadron Technical Section CS T28 to provide support to the Heavy Combat Team made up of members and equipment from B SQN 1ARMD and a platoon of Infantry from 10/27 RSAR.

With five M1A1 ABRAMS Main Battle Tanks, a mechanised Command element and FRT (including M88) plus ancillary support vehicles, our task ahead was enormous. Preparation involved achieving a high standard in terms of maintenance work, paperwork, and dangerous goods documentation. This often led to late hours for both the Quartermaster and the ASM, in addition to preparing the vehicles for sea travel, embarkation tasks at the loading port, as well as understanding tasks and duties within an Indonesian Defence Force barracks and training ground.

Sea preparation left the vehicles stickier than an OJT with a dodgy caulk gun, but they were loaded and transported to Darwin Harbour, where they awaited transport by USAV SSGT Robert T. Kuroda to Surabaya, East Java. Unfortunately, three separate breakdowns necessitated an FRT to fly from Adelaide to Darwin to support the loading of the vehicles. To add to our pain, the M88 also sprung a substantive transmission leak. With aid from Darwin local units, the likes of 5RAR, 1CER and 1CSSB, repairs were completed just in time for loading to begin. Then before we knew it all vehicles were sailing into the sunset, ready to meet us in Indonesia.

On August 22nd, the Australian contingent of Super Garuda Shield departed from Adelaide Airport via KC30 to Surabaya Airport. Upon landing, we were warmly received by Indonesia and their people. After clearing customs, an unloading team handled the unloading of vehicles, while the rest of the contingent took a bus to the training ground. The Training Ground, Puslatpur Marine Barracks, was unlike any in Australia, with farmland, a single dirt road, hills, and knolls. Public access to the area posed security challenges for the Australian contingent. The motor pool, shared by Australians and Americans, had been created by levelling a local village's football field, with the locals still retaining complete access to the site. From the motor pool picket point to the accommodation area was a 10-minute walk along a dusty track resulting in a very large step count each day.

Upon the arrival of the vehicles and their escorts, crews immediately began conducting preventive maintenance checks, looking them over after their 6000 km journey. The shakeout in a foreign country went well, with only minor faults reported and fixed, ensuring that all the tanks were fully functional.



Over the next few days, RAEME built relationships with our Indonesian counterparts. While we worked on a variety of equipment, they specialised in the Leopard 2A4. However, like us, they also have a boffin, fitter and mechanic trades to work on the equipment and if my google translate was correct, their version of an ASM was someone that was an expert in two of the trades, this case fitter and boffin. Comparing our M1A1 to their Leopard 2A4, both share a similar lineage, surprisingly revealing some commonality in parts until it comes to the power plant. The 27-liter V12 twin-turbo rumble of the Leopard left us in awe and accompanied with the M1A1 high pitched scream, the symphony of diesel-guzzling horse power made a tune that would fill the hearts of anyone that wears our hat badge with love.

The M1A1 Main Battle Tank carries a heavy maintenance liability, and on the third day of dry training, we faced our first repair challenge. A catastrophic transmission failure, no steering soon cascading into a no drive fault as well. The decision was made to attempt to source a new FUPP from Australia, flexing our lines of communication and supply chain but sadly, with no success, no doubt a sore point for the S4 and ASM. Moving forwards, the Vehicle Technicians dove head first into a deep diagnostic process; the valve body was overhauled, oil channels inspected, solenoids tested and cables and sensors interrogated. The transmission was reassembled and albeit only partially successful, we were rewarded with forward and reverse gears but still no steering. We couldn't isolate the problem and after correspondence with the OEM, they concluded that it was a fault with an integral electrical loom within the transmission, thus beyond the scope of reasonable repair. This left one tank out of the fight and would soon become the donor for future CPEs.

As anyone familiar with a Darwin or Townsville posting will soon tell you, the weather can be a bit warm. Too warm. Indonesia was no different. As we had come from Adelaide in August the



temperature differences were somewhat noticeable. Working within or on armoured vehicles resulted in several litres of water being drunk daily and topped up with Tebs, the local ice tea, which was the new choice of RAEME, arguably replacing coffee. With the transmission going in for open heart surgery, keeping the dust from the motor pool out of the transmission was the highest priority. Borrowing the SHQ tent, we were able to keep the dust out, however, we turned the tent into a large portable easy bake oven. With the added challenge of working in the oven and the heat from the crew looking in to see if there was any chance of getting the transmission to work.



We weren't the only ones to be challenged by the exercise, with the Indonesian Tank maintainers also confronting breakdown maintenance and similar parts supply dramas. With no RPS nor MILIS to hold them back, an assortment of O-rings from an Australian RUK kit managed to get them out of a pinch. Incidentally, most of the Indonesian Tank Maintainers are trained in Germany and I do wonder if there is a lesson here that we can learn from. As the training progressed, two more tanks and the M88 encountered issues. One tank would only start in the morning, possibly a lack of acclimatisation training, whilst another M1A1 developed a transmission issue. The M88, with its fresh power pack, had also suffered an oil leak and despite our best efforts in Darwin, it seemed the M88 was determined to lose oil, springing a new leak from a different spot. While these issues were frustrating, the camaraderie developed with our Indonesian counterparts made it worthwhile. With their help, we used the Bergpanzer's crane to lift off the M88 top deck in order to locate the new leak. Ear plugs in and goggles on, we scoured the many crevices of the M88's engine bay and eventually found the leak to be deep down on the transmission cooler. Once again not a readily available part, so plan B was devised. The M88 was benched unless necessary however due to extended supply lines and quantity required, a replacement oil still needed to be sourced. Strangely, M88 transmission oil is not in common use within Indonesia, given the primary mode of transport is moped or motorcycle. With our US counterparts and other allies also not holding a suitable substitute, the search was on. Eventually after much research, technical data translation and scouring all over East Java, a suitable replacement was found locally at a tractor dealership.

With the last live-fire exercise completed, pictures were taken and friendships made. We loaded the vehicles back onto a ship and at time of writing, the tank fleet was sailing back to Australia. From a RAEME point of view, Exercise Super Garuda Shield was a learning point on how to support a troop of tanks, on a foreign shore with no 2nd or 3rd Line Level of Maintenance support. It is with great pride that the A1 went above and beyond to provide maintenance to the troop, recalibrating the arcs of *Arte et Marte*.

1st Signal Regt Workshops

Solomon Islands 2023

CFN C Carter

On 10 Aug 23, CFN Dylan Alderton and I were offered the opportunity to deploy to Solomon Islands with 127 Signal Troop, 1st Signal Regiment (1 Sig Regt) to install radios and hand held radio chargers into multiple vehicles in support of the Royal Solomon Islands Police Force Communications Project (RSIPF CP).



As soon as I was notified about this opportunity by CO 1 Sig Regt, LTCOL S Ellyard, who I can only imagine wishes he was a RAEME Officer, I ordered 10 RAEME soccer balls to gift to the Solomon Islanders. I then reached out to Camille from Stafford Salvation Army Family Store who donated several large bags of clothes, shoes, sandals and various small toys.

On 02 Oct 23 our adventure started. At 0900 we were on a C17 Globe Master taking off from RAAF Base Amberley arriving roughly three hours later in the Solomon Islands.



We immediately got to work as the vehicle installation team, within a contingent of 127 Signal Troop, 1 Sig Regt (pictured above). Their role was to set up a VHF communication network for the RSIPF in the lead up to the Pacific Island games. We were installing two to three radios a day in vehicles, as well as assisting the Solomon Island Police Force workshop with maintenance and repairs. The rest of the team's role was to set up the communication system for the radios to work.



Dylan and I worked primarily out of ROVE HQ. This is where we met the awesome workshop team of six mechanics and three radio technicians. These guys referred to themselves as the “Solomon Islander RAEME boys”. We worked hard with these guys, showing them some of the awesome tricks we have learnt in our trade.

We had the privilege to show off some awesome soldering and auto electrical skills, which the boys absolutely loved. The Australian Government had donated two scan tools which we showed the Solomon Islander RAEME boys how to use. This training culminated in a “test of objectives” in which I disconnected a few sensors then role played a stranded, clueless customer. This was a lot of fun and an awesome opportunity for us all. The other mechanics would then connect the scan

tool and look up the code with very minimal coaching and were able to identify and fix the faults. I was impressed by their adaptability and how quickly they picked up how to use this tool.

During our time we identified a number of tools and supplies to help out their workshop. We sat down with them and wrote a wish-list to be sent back to higher HQ for approval and purchase. This included a portable tyre air compressor, proper spray bottle for brake cleaner, more than one roll of spanners for the whole workshop, etc.

Much like in Australia with isolation switches, common faults with the vehicles were battery related. The only tool in their inventory to test batteries was a multimeter, so I taught them how to use a battery analyser. This way they could actually test the batteries health instead of charging batteries for them to fail during the day. I also donated my brake fluid analyser, as they had no way to test for contaminated brake fluid.



Day to day it was an amazing experience working with these guys. A standard day would start at 0700 (Island time) to go for a run, gym session or even a swim. We would leave FOB RAMSI at around 0800 to grab a hot brew from the ANZ Café on the way through. At 0900 we would arrive onsite waiting for the workshop to open up. This is where we learnt about Island time. As it would turn out, 0900 is not an actual time but rather it means some time that day. Our day would usually end around 1500 (island time). We would then go on the hunt for a new place to eat, or on the hunt for some more souvenirs to purchase and bring home.

Dylan I had the opportunity to try quite a few restaurants while we were there. So much so, the local restaurant, Palm Sugar, was happy



to hang up the “Australian Army Flag” which I failed to explain was the RAEME Corp flag and as a result, it is now known in the Solomon Islands as the “Australian Army Flag”.

The locals were incredibly friendly. They offered us fresh coconuts on the beach, they shaved and opened them in front of our eyes for five Solomon Island dollars. We also had the opportunity to go snorkelling and play soccer with the locals.

One of the places we went to fix a few vehicle faults was at the Solomon Island EOD base. We noticed they had a fresh cut soccer field so we had to give them a RAEME soccer ball.

Before we left, we donated all of the goods kindly donated by Camille from Stafford Salvation Army Family Store. We paid a visit to the MAEVA House, which houses woman and children who suffer from domestic violence.

The team at the MAEVA house was so thankful for all the gifts Australia’s organisation keep on providing them.

All in all, the entire visit to Solomon Islands provided a real sense of achievement and contribution to the local community. I am grateful for this opportunity provided to me during my tenure at 1 Sig Regt. We were able to demonstrate our trade skills to our new found friends, and they taught us the value of family, community and looking after those around us. We learnt many life lessons which has reminded us to reflect on the importance of gratitude for what we have, and looking after those around us.

Soccer Balls sourced from Darren from Custom Soccer Balls.



2 Commando Regt

Workshop HQ



This year saw significant turnover in the head shed with our MARWO being 'loaned' to CHQ to balance out the better looking people in our organisation. The EMEWO and PL COMD were also replaced in 2023, along with all five section SGTs. This large turnover provided a significant burden on the ASM to ensure all SNCOs, Warrants and O's were effectively educated on the idiosyncrasies of the unit. Thankfully, all parties were quick learners and were able to hook into prod,

albeit with the help of a few hundred face-palms. In July, we our PL COMD got a taste of aviation planning after the tragic event of the MRH90 Taipan Crash during EX TS 23. During the 10-year Anniversary of CPL Cameron Baird, VC, MG our EMEWO decided his physical standards were representative of a 25-year-old and scrapped it on the footy field. This resulted in him putting shots on anyone who had missed their 3rd call-in this year. It didn't end well for 2 x ribs, or his MEC Status...

EIR Section

EIR began the year with some area beautification after their washing machine blew its inlet hose overnight flooding the workshop floor. Unintentionally washing out the ghosts of the past the area did benefit from a good clean though. They lost their carry over 418 early in the year due to an in-service transfer to the dark side. This left them low on numbers and as usual the position is still not filled by this ECN into 2024. EIR went about its usual business throughout the year conducting EITs and coordinating calibrations. Extensive boffin support was provided to the units experimental and trial team and development cell with great results. Work was consistent throughout the year supporting training and exercises culminating in the standard unit's farewell gift plaque engraving flood.

Marine Section



SOPTCH course in Sydney Harbour

2023 has been a challenging but rewarding year for the Marine Engineers within 2 Cdo Regt, not only those in the Workshop conducting annual slipping, but especially for the members integrated into SBT-2.

This year the slipping of SF ADRHIB included a Forward Works Program which involved the fitment of shock mitigation seating. After three years of trials and some tribulations, the intro to service occurred of the Army Safety Watercraft. We also continued the usual upskilling of personnel, by internally running MSEM and SWMC.

Marine members conducted a variety of insertion/SOCOMD specific courses throughout the year including SOPTCH, SOF-TS, MSLO, MFFO, AMP and weapon packages. There are few other careers within RAEME where you might expect to be stripping an engine or propulsion system one day and then conducting fast roping from a MRH90 or military freefall jumps from the ramp of a C130 the next day.



SOPTCH course at the Z Force Memorial

With the reinvigoration of Army Marine linked with a focus on littoral manoeuvre in the DSR, our Light Marine section has been extremely busy with only one member to conduct various OBM, Zodiac, Klepper and safety equipment inspection and repairs (whilst simultaneously supporting a growing list of exercises). Additionally, our members have been getting some time at the tiller conducting uneventful small boat operations through the rivers and bays of Sydney.

An often forgotten aspect of Army Marine is that it is dual ECN, with 146 and 229, and our token Vehicle Technician has been working hard on courses, boats and trailers of course. Accordingly, single handedly he is doing more work than all of Vehicle Section.

Vehicle Section

For the boys in the back room, the vehicle mechanics of 2 Cdo Regt had an extremely busy year with the unit motto WITHOUT WARNING ringing true. Between after-hours beers, doing bodgies, last minute tasks and supporting multiple trials on new platforms, our year flashed before our eyes. Our year started with almost an entirely brand new crew of diggers and NCOs. This created a challenging dynamic and we were all thrown into the deep end. Between an acting Sergeant, a crippled Corporal, a fresh fish Cpl and one very sad LCPL, we hit the ground running learning our new job roles and all the platforms that are unique to SOCOMD.

It was not an unusual sight during the year, to have only a few people left in the workshop scrambling to keep the unit running. The boys got the opportunity to work on new vehicle platforms, design, create and modify equipment for the first time in their career – but who doesn't love a challenge right?

Our good SGT still managed to get us on maintainer courses, drivers courses, field trips and for a select few operational deployments. The boys left behind were flat strap running operator maintenance lessons, fixing the unfixable, putting out spot fires and of course picking up the slack from the other sections as vehicle section often does.

However, it's not all work and no play. Regular range days throughout the year saw a few of our Crafties earning their crossed rifles and of course we got to play with a few specialist weapons such as sniper rifles, shotguns and sub-machine guns. One of the perks of serving in 2 Cdo Regt is of course the wide array of mobility platforms, and learning to operate them (someone has to test drive the buggies and bikes). The difference at this unit is you do want that elusive motorbike course (and yes it is a real thing).

With our turbulent year coming to a close, and our beer fridge nearly empty, we say farewell to 2023 and good luck to those of us who are leaving. The 1st (AS) Div will be lucky to have you (and if not you can always get a job at the local JLU).

Bring on 2024 and the future challenges!

Weapon Courses

Members of TSP were busy in the last half of 2023 conducting the Tier 2 Combat Shooting Course at the School of Infantry and a SF Weapons course. This provided improvements in their combat skills, instilled a combat mindset and built on their combat behaviours. The tangible effects were



SF Weapons Course



School of Infantry Combat Shooting Range

increased combat effectiveness, increased lethality and enhanced survivability while providing qualifications in an array of weapon systems. We even qualified the PI Commander (for our own safety of course).

General Engineering Sect & Dets

Once again GE was the shining light and Sikaflex holding this pony together, whilst being light on numbers due to workforce hollowness, our poster boy CPL W deployed most of the year and having multiple Armourers detached throughout the Coys, we still managed to keep the wheels turning all be it with few choice words. As usual someone (VEH) whinges “we never get to shoot”, so GE answers the call, “piece of piss mate” says CPL A and proceeds to single handedly deliver and OIC a cross rifle shoot, resulting in a number of provisional and permanent cross rifle patches being awarded to our blokes by the CO and RSM (you’re welcome VEH Sect)!

Q2 was consumed with a plethora of in-house maintainer courses; both marine and armament, as well as a number of “proof of concept” trials of vehicle mounted weapon systems. We thought we were lucky to receive a last minute blow in re-tread CFN who’s not bad on the tools, post-in, only to have our other CFN voice his intentions “*I wanna be a frog man*”, great.... back to square one.

So now we’re half way there and as usual the shooters have nothing better to do than walk-in on the boys detached throughout the strike Coys with the same old “mate, I got an idea” which is more often than not followed up from our boys with “*nah mate..... you know you can’t do that*”. With some weapons having more fruit than an orchard and others more sensible. We do have the occasional win with certification for use, RODUM remediation and trials, often working with and relying on the GE SOLS team to get us across the line.

With Q4 in full swing and spanners flying left, right and centre in the WKSP, that reoccurring, whinging, screeching bearing sound can be heard again.... “*we never get to shoot*”. This time EIR chipped in with the delivery of the enhanced combat shooting package, with our blow in re-tread CFN providing expert instructional assistance with the SOI team. Special mention goes out to LCPL R who delivered a masterclass and a slap in the face to the fresh Cpl S “*nothing wrong with that gun*”.

A few short weeks later GE and RPS collectively rolled out the SF WPN Operator Suite for the WKSP, only to have an uninvited guest weasel their way onto our course. Unfortunately for us the local MP unit was given a priority with the “promise” they would deliver induction training for the SOWA in 2024. Needless to say we were hoodwinked (expectedly) and they’ve reneged on the agreement (#thanksfornothing). We’ll keep that in mind next time there’s an MP standing on the side of the road conducting speed checks, that puddle’s got MP written all over it!

As we slide closer to RAEME birthday, our poster boy CPL W swans back in post deployment, gives us a quick shakas as he takes off for his next posting. CPL A has since decided to turn to the dark side (all the best mate) and our frog man is still treading water, the rest of GE decided to get



Master key

ahead of the curve and rollout two Minigun Maintenance courses back to back, with the expectation 2024 is going to be another busy year.

In closing

Our thanks go out to our ASM and our MARWO, who for three years have humbly served the Unit very well in a complex environment not often associated with governance compliance and the highest standards of WHS. Their dedication to the workshop in TRF compliance, prod efficiency and effectiveness, our soldiers, mentoring of junior officers, career management and CAPDEV (just to name a few) has not gone un-noticed.

This organisation would not be so well placed if it wasn't for their efforts. We wish them well in their future endeavours. From the home of the secret squirrel.... Arte et Marte (but always Foras Admonitio).

2nd Combat Engineer Regiment (2 CER) Technical Support Troop



The Army Team Award – Good Soldiering was awarded to acknowledge the exemplary maintenance support provided by the Technical Support Troop (TST) - the Operational Support Squadron of The 2nd Combat Engineer Regiment (2 CER) - over a sustained 18-month period from January 2022 to July 2023. Over the period, we produced over 6,400 labour hours of production; this is a remarkable feat for a TST of our size and composition, who are required to maintain such a vast and diverse array of land and sea materiel, including two aging fleets (AS4 and PMV) as well as bridging, plant and other CE specialist equipment.

In January 2022, 2 CER was called upon to render Humanitarian Assistance and Disaster Relief (HADR) to the Kingdom of Tonga after the eruption of the Hunga-Tonga-Hunga-Ha'apai volcano, on 15 Jan 22. In addition to this work in the lead up to the deployment, a six-man Forward Repair Team (FRT), from TST deployed, with the Regiment IOT provide integral maintenance support for the duration of Op TONGA ASSIST 22, Jan – Mar 22.

It was only three weeks after the Regiment's initial deployment to Tonga, that Australia's eastern coast experienced one of the nation's worst recorded floods. As a result, 2 CER deployed its remaining force elements on Op FLOOD ASSIST 22 along with a three-man FRT from TST, which saw continued relief efforts to SE QLD and Nth NSW.

TSTs' dedication was further exemplified in their recall to work, to enable the 2 CE SQNs rapidly deploy on Op FLOOD ASSIST 22, working extended hours and over weekends to assist in the provision of PMVs for 2 SQN to deploy to multiple areas of operation in Bryon Bay and Mullumbimby, NSW.

It was at this time, with a further reduced staff, that TST was also tasked with the refurbishment of two M113-AS4 Armoured Personnel Carriers that were bound for the Ukraine in the delivery of Australian aid and Government gifting to support Op UKRAINE.

By May 2022, the Regiment reconstituted and resumed its Advanced Collective Training program, designed specifically to prepare the unit for Ex TALISMAN SABRE 23 (Ex TS 23). Over the next 12 months, TST enabled the Regiment in support of three major exercises. In August, 2 CER undertook one of the largest and most ambitious Regiment-led exercises in recent years (Op LITANI), involving the deployment of three engineer bridging fleets, including the Medium Girder Bridge, Improved Ribbon Bridge, and the Infantry Foot Bridge, in WBTA.

The start of 2023 commenced with similar in nature to the previous year, when in February the Regiment again deployed on exercise in SWBTA for Ex Terrier Walk 23. This saw a larger collection of equipment required to support CE training scenarios in the field over a five-week period. TST again surged in production in order to prepare this equipment to a deployable standard as well as providing FRT support for the duration of the exercise.

Their support effort culminated between the 2023 exercises. Through this period, we again worked arduously with extended hours to catch up on preventative maintenance and repair damaged equipment from the previous exercises, effectively turning around the Regiment's fleets in quick time to facilitate its use on the 7 BDE WFX and Ex TS 23.

Their commitment and enthusiastic approach towards their trade, corps and Regiment is the reason behind the impressive performance they have delivered. The Army Team Award recognises their amazing creativity, dedication and hard work to achieve these goals, in unwavering support to the Regiment over a continuous period, emulating their corps motto 'Arte et Marte' - With Skill and Fighting.

Their efforts exemplify a team ready to assist at any time and in any way possible. Through their behaviour, integrity and diligence, their achievements are a testament to their commitment to excellence.

The experience that TST undertook, as a part of the Team Award, was designed to develop individuals but at the same time reward the team members as a collective; we chose the scaling of the heights of the Story Bridge to achieve this. It was an exhilarating experience, which enhanced the troop's dynamics, fostered collaboration and ignited the spark for further greatness. Together, we conquered the heights, some overcoming fears but all of us creating lasting memories as a cohesive team.

After climbing the iconic Bridge, as a troop we gathered under its majestic arch and embarked on a thrilling kayak adventure. Kayaking with 'Riverlife', we paddled along the tranquil Brisbane River (some ended up in it) for an experience with a vantage point to reflect on. It gave us a moment to think about our conquer of the height of the bridge above, while reflecting also on what we have achieved this year and enjoying the Brisbane skyline from a different perspective.

The day ended with lunch at a local venue to recount the stories of the day and year. The second day of the experience. This will be a familiar RAEME custom (and well-maintained tradition within unit workshops) to the conduct an ASM's Golf day. The purpose of this experience is to raise and maintain morale, and build team spirit and farewell the members of the troop that will be moving on at the end of the year.



Receiving the Army Team award for 2 CER TST was a very humbling and a gratifying acknowledgement of our efforts over a protracted 18-month to two-year period. It will go some way to address what at times has felt like unrecognised work and effort, aiding to raise morale for the recipients, assist with retention, and build a stronger foundation for the start of 2024.

Arte et Marte

WO1 Wayne Davis
ASM 2 CER
Jan '21 – Jan '24

2 Force Support Battallion & 4 CSSB

2 FSB EX Rodent Revenge 17 to 19 Nov 2023

LCPL Matt Jordan Recovery Mechanic

4CSSB in conjunction with elements of 3 Recovery Troop, 15FSS (2nd Force Support Battalion-2FSB) conducted a training weekend incorporating recovery and driver training within the Puckapunyal Military Training Area (PMA) over the weekend of the 17 to 19 Nov 2023.

As a Recovery Mechanic in 2FSB, 6LSC (6 Logistic Supply Company) located in Hobart Tasmania, I was provided the opportunity to join the weekend training activity with the Team.

This was an opportunity that I couldn't say no to, as for several reserve Recovery Mechanics, the training to reach the basic standard can take years to achieve and reserve training opportunities can be limited due to battalion activities.

The weekend was led by OC MAJ A Chew, Worm (W02 Jason Powell), and SGT Tim Knowles from 4CSSB. A variety of keen soldiers attended the weekend, consisting of senior experienced members, to soldiers undertaken conversion training from the old legacy fleet to the new Land 121 Fleet, to members requiring on the job training and sign off (OJT) to become fully qualified Recovery Mechanics. Recovery vehicles were prep on the Friday night, departing from respective areas in Melbourne to meet at the PMA by 2230hrs. Saturday the training commences as a walk activity having two 42M (MRV's) and one 45M (HRV).



Recovery Mechanics PMA with M88, Left to Right: CPL John Obrien, SGT Rick Lowe, CFN Rick McGrath, CFN Tom Hellawell, CFN Rhyse Moore, CFN Richard Saunders, SGT Tim Knowles, W02 Jason Powell, CFN Carl Leeworthy, CFN Bernard Douglas, LCPL Matt Jordan, SGT Jack Separovic, CFN Brandon Choi & CFN Eddie Adams

Training Scenario One (Sat 17 Nov)

Scenario one, was a Bushmaster PMV with no front end stuck in the 'mud'. The 42M (MRV) was utilised and members had to work out the Total Pull Required (TPR) for the winch ropes and the tackle layout to have the casualty (croc) removed from the 'mud' onto hard standing.

Once the Bushmaster was back on 'hard standing', members had to lift tow the croc back to the original location ready for the next group to undertake the activity.



Training Scenario Two (Sat 17 Nov)

Scenario two was a testing vehicle that appeared to be a hybrid between a Bushmaster and a Hawkeye, an armoured vehicle. The second 42M (MRV) was used and members had to work out the TPR and CES to roll the vehicle on its side and then roll the vehicle back into its original location without damaging the equipment.

The photo below shows how one the 42M winch ropes were redirected to allow even pull and steadying of the casualty as it rolled over.



Training Scenario Three (Sat 17 Nov)

Scenario three was a testing vehicle similar to a Hawkeye, an armoured vehicle. The 45M (HRV) was used for the activity. Members who were not qualified on the 45M (HRV) got an appreciation of how the vehicle operates with the boom at the rear having two functions for recovery and or lifting. The 45M (HRV) also has a 25 tonne winch to the rear.

This activity was a recovery scenario having the casualty rolled over by use of the boom. Recovery based indicating that the casualty didn't leave the ground.



Sunday 18 Nov 23- Lift Tows and On the Job Training

Sunday provide an opportunity for the members to undertake a lift tow with the 42M (MRV) and 40M, combined with on the job training (OJT) to allow Recovery Mechanics to be signed off.

Lift Tow- 18 Nov 23- Lift Tow 42M (MRV) to 40M

Collective training was undertaken by SGT Jack Separovic for the lift tow of a 40M with the 42M (MRV).



SGT Jack Separovic providing instruction



42M (MRV) Lift Towing 40M

Lift Tow- 18 Nov 23- Lift Tow 42 (MRV) to Mack Truck

Soldiers from 4CSSB got to lift tow a Mack truck using chain adapters for on the job training.



Lifting Task- 18 Nov 23- Lifting Task with 45M (HRV)

CFN Rick McGrath had the opportunity to do a lifting task (dogging) with the 45M (HRV) to complete on the job training.



CFN Rick McGrath rigging up and lifting a load for on the job training

The weekend provided a great opportunity members undertake trade training and making networks for other Recovery Mechanics in the southern area of Australia.

The weekend provided valuable training for all members with momentum for recovery based training weekends to continue into 2024.

2nd Health Battalion Workshop

CFN Tamati and CFN Connor Lyon

In 2023 the 2nd Health Battalion Workshop (2 HB WKSP) has gone through a lot of changes including a high turnover of people in this posting cycle. The new addition to the 2HB WKSP included a new ASM, Boffin SGT, Elec CPL and crafty and a Fitter CPL. We were also able to acquire a VM Crafty who marched in towards the end of 2022 straight out of OJT's. As we are a fairly small, tightknit group, it took us time to adjust. 2HB WKSP's deployed on the minor and major Exercises with the Unit and the Elecy's assisted with the Operational Test and Evaluation (OT&E) activity for the JP2060 project.

2HB WKSP's also relocated to our new Workshop in 2023.

Ex Viper Walk – March - Greenbank

Ex Viper Walk (Ex VW) was an eye-opening experience for the skeleton crew of the WKSP boys, including our adopted Plumber from 6 ESR. The new march-ins hadn't worked with any of the medical side of the unit and the guys from last year that had, didn't have any experience with the hospital set-up due to a lack of exercises run in 2022.

The first few days were the busiest with the set-up. It took a day or so but we were allowed to run PD's thankfully, as it was starting to heat up. The daytime consisted of developing our workshop area, watching the medics set-up the hospital flooring and tent (that we were told not to help with) and putting out spot fires. The evening/night time is when we went to work, pulling apart the hospital flooring to run power cables and plumbing as well as setting up Environmental Control Units (ECU), sinks and lighting for every area of the hospital.

It took about 4 days for the hospital set-up to be fully complete and then the bulk of our days/ nights consisted of running repairs to the ever erratic no-touch sinks, generators and 10ft fridges, as well as general patch work around the tents and a few vehicle repairs.

Once the medics started running their scenarios we were used as patients, general hands and were transporting patients to different areas on rickshaws. It was interesting to see the medical staff and all the equipment we maintain in action.

Our portion of the hospital pack-up was done at night again which we were thankful for as we got to stay out of the heat for most of the day.

Ex Talisman Sabre –July/August – Townsville



The Exercise Talisman Sabre (Ex TS) crew were pretty similar to the team that went on Ex VW and included the Boffin SGT, Elec CPL and Crafty, VM CPL and myself the Fitter Crafty. Joining us as well were a pair of OJT's, a VM and a Tech Elec. Once we got to Townsville Field Training Area (TFTA) we were also joined by our Plumber, again from 6 ESR, who had already been out field for a few weeks for Ex Diamond Strike.



The set-up began much the same as Ex VW, albeit on a larger scale, with the WKSP being allocated a decent sized area in the back corner next to the generators for our 2x GMV's, Medium Maintenance Module, Boffin Hard Shelter, Plumbers stores 20ft container and our RPS Heavy Stores Module.

This time we were allowed to partially help with the set-up of the flooring for the hospital, which sped up the process. It also enabled us to "borrow" a stack of the flooring tiles to develop the multipurpose eating/meeting/sleeping area we had made for protection from the weather. Our WKSP set-up was good to go; considering our WKSP tent was commandeered by the CSM to use as a mess area for the Exercise.



During this Ex TS we got to work closely with our Brisbane based SERCAT 5 members which make up the majority of 2 HB's numbers who are mainly Doctors and Nurses, most of which I'd never even seen before and this was my second year at the unit. We also got to meet and work with our SERCAT 5 Doctors & Nurses from our detached company, D Coy who are based Sydney. It was a refreshing surprise to see how keen the majority of them were to help out around the place and were happy to teach us about a bit of what their roles entailed at home and in the field.



For both Exercises we were supported by 145 Sig Platoon, also located in Sydney. They came in handy at Ex TS as they set-up our comms gear (and more importantly the Starlink) as well as chipping in for our CP and TCP piquet's, while also having their own 24-hour radio piquet to watch.

Operational Test and Evaluation activity

Post Ex TS, we assisted the clinical staff in learning and demonstrating the set-up of the new JP2060 medical equipment. JP2060 has been several years in the making with the intent to replace our current medical equipment, medical shelters including air-conditioning systems.

The new shelters are significantly faster to assemble, but that comes with some drawbacks. The shelters are smaller and more fragile than our current systems. Concerns were raised on their longevity in the field environment.

Workshop move



Ever since I posted into 2HB everyone has been anticipating our new workshop being finished. We were told early last year it would be ready in October 2022, but in true ADF contractor style it arrived fashionably a year late and with a few mistakes and teething issues. One of our favourites being our new “Battery Maintenance” room. We received the keys early October 2023 and after a few weeks, moving bit by bit, we were all moved out of the temporary workshop. The new building has a few intricacies we are still trying to figure out (like how you could move a whole platoon of people in without having a printer), but all-in-all it seems pretty decent.

The new set-up is pretty similar to all the workshops that have been rolling out for the last few years, the only exception with ours is that we share it with the Transport office, Pathology, Pharmacy and a Q store storage area.

We farewell CPL Jackson, who is leaving us to head to 2 FSB in Tassie for his next posting. Early in the new year we also farewell CFN Lyon who is leaving to continue his University studies and CPL Jack Graham RPS who will be Service transferring to become a Submariner, we wish them both the best.

As the year draws to a close we have some time to reflect on a busy but successful year for the Shop. Next year we will be welcoming a new VM CPL and a Boffin Crafty to our family.

20th Regiment (RAA)

2023 has been a year of significant capability demand and change for 20th Regiment, RAA, with the Regiment accruing approximately 1300 flying hours across the Integrator Tactical Uncrewed Aerial System (TUAS) and Shadow 200 (SH200) TUAS.

The Regiment has begun supporting the introduction into service (IIS) of the Integrator TUAS delivered under Project Land 129 Phase 3 (L129-3), which will replace the current in-service SH200. L129-3 is an important upgrade to Army Aviation's TUAS capability and will see several critical enhancements to intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) effects for battlefield commanders. This includes better range and endurance for the air vehicle (AV), improved mobility and survivability with the integration of Ground Control Station equipment into Protected Mobility Vehicles, runway-independent launch and recovery operations, and greater variety of payload configurations.

The Integrator TUAS is less AV-focused than the SH200 and effective operations rely on bi-domain maintenance support from both Ground and Aviation Workshops. For example, the suite of generators which power the systems and provide redundancies for critical phases of flight operations are maintained by ECN 418 Energy Technicians and the launch and recovery trailers are serviced by ECN 229 Vehicle Technicians, ECN 411 Aircraft Technicians, and ECN 412 Avionics Technicians. A first-of-type trial also saw Energy Technicians attend the Integrator Maintainer Course and conduct maintenance on the Integrator AV under the supervision of Aircraft and Avionics Technicians.



Doing field parris the RAEME

The skill and professionalism of the Ground and Aviation Workshops was demonstrated during the Regiment's deployment over the major exercise period (Jun – Sep 2023) in Townsville Field Training Area and Wide Bay Training Area. This saw the Regiment support a sequence of training activities, including Exercise DIAMOND STRIKE 23 (Ex DS23) – a 3 Brigade-led Combined Arms Live Fire – Exercise TALISMAN SABRE 23 (Ex TS23), L129-3 Operational Test and Evaluation (OT&E), and SH200 ab-initio training. During this period, the combined Ground and Aviation Workshop teams concurrently supported both 131 Battery and 132 Battery to achieve their respective missions across geographically dispersed locations.



CPL Jesse Hickman from the Aviation Workshop troubleshoots the Integrator TUAS Antenna Interface Module

During Ex TS23, SH200 operated ISO BLUFOR and Integrator operated ISO REDFOR. One thing to note about SH200 is that it is powered by 28 kW Wankel engine that has earned it the affectionate nickname of “The Flying Lawnmower”. This was the bane of everyone trying to sleep on Ex TS23 and it was unfairly blamed by BLUFOR on the comparatively silent Integrator! Despite this constant droning, the SH200 maintenance personnel put in a Herculean effort and enabled the Regiment to fly over 800 hours across Ex DS23 and Ex TS23. The Integrator personnel also achieved 240 hours during OT&E on Ex TS23, putting the Regimental total above 1000 flying hours in just 7 weeks. The Ground and Aviation Workshops have worked tirelessly throughout the year to support this unique capability and enable the Regiment to achieve record flying hours. The skill and dedication of our maintenance personnel has put the Regiment in good stead and it is well placed for another year of demanding exercises and operations.



SGT Osborne, Aviation Workshop, helps CFN Delaney, Ground Workshop, troubleshoot a G-Wagon

3rd Combat Engineer Regiment

3 CER – Power of the Dingo Paw

The Cliché of another busy year rings true across the ADF and it is no different at 3 CER during 2023. The Operational Support Squadron (OSS) comprises of Logistic Troop and the Technical Support Troop, in support of the Regiment across domestic operations and tactical exercises. It has created opportunities for training and deployments ISO of these operations/exercises.

Exercise DINGO FURY

OSS deployed to Townsville Field Training Area (TFTA). This is considered as a shake out for the SQN to understand the challenges of integrating new personnel into their roles and responsibilities in support of the Regiment. Establishing critical logistic effects to enable remaining unit elements to deploy. The initial focus was preparation for the issue of combat supplies to the engineer squadrons to enable establishment and the commencement of training. OSS training for the Exercise focused on all-Corps soldier skills and achieving an understanding on delivering the CSS effect to the Regiment. OSS were able to achieve Linear Distribution Points, as well as revising and practicing the requirements for vehicle convoys on public roads using Land 121 vehicles. OSS were relatively inexperienced conducting these tasks, so the opportunity to conduct training and to multi skill the members to increase their understanding and capability was invaluable. Developing the teamwork and having the SQN understand areas which may not be your area of expertise but are willing to learn.

Exercise TALISMAN SABRE 2023

The main focus of the year was Exercise Talisman Sabre 23. Although OSS did not deploy completely, the squadron did support a variety of Units as well as support the BDE. LT Rory Whitton of TST commanded a LOG Node in support of the Regiment providing resources to 16 & 18 CE SQNs. OSS also provided tactical caches of CL IV to ensure 25 SPT SQN conducted its mission in support of REDFOR. The TPT section was assigned to the US led BG Gimley assisting in the movements of stores across the area.

Legacy Fishing Competition



The annual 3 CER Legacy Fishing Competition was conducted this year from the 01 – 04 September and was a huge success. This year the focus for the competition was shifted onto targeted species with 16 categories with first and second prizes up for grabs.

Despite the rebranding from 3 CER to the 3rd Brigade Legacy Fishing Competition, the participation was built from the majority of 3 CER members. However, all up over 500 members from across the Townsville region both military and families participated. The launch day was run on the lawn in front of 3 CER RHQ which saw stalls from 4WD central, a casting competition from Pure Fishing Australia, live music from the 1 RAR band and a much improved and streamlined registration tent run by OSS.

This year \$20,374 was raised in support of Legacy, topping the \$14,000 raised last year. All proceeds from the shirt sales, entry fees, brag mat sales and generous donations will assist Legacy in its work within the North Queensland defence community. Notably the funds this year will go to assisting families who have lost loved ones in the line of service paying for school fees as well as funding for their children with the experience of a lifetime to walk the Kokoda track.

We would like to thank our generous sponsors for 2023 with the Major Sponsors being the North Queensland Sappers Association, Townsville RSL, Pure Fishing Australia, Kai Signs and Reeling with Veterans for getting on board. We would also like to thank CPL Grey from Brigade HQ, CPL Couper from 3 CER OSS and Michael King from Reeling Veterans Australia for their immense efforts in gathering sponsors and ensuring the event was a success.

Introduction to Survival Techniques



OSS deployed on a Combat Survival training exercise, aided by the Combat Survival Training School from RAAF Townsville. The squadron was separated into two distinct and different groups within the within the Pall Mall sector of TFTA. They were taught techniques to survive in a permissive environment. Inclusive of making drinking water, ability to live off the land with vegetation, fishing, shelter creation, how to start a fire and making a visible smoke signal to be seen by low-lying aircraft. It was a very good exercise in knowing yourself, knowing others and how to live in a harsh environment without your 'creature comforts'.

RAEME birthday

3 CER held a regimental dining out on 1 Dec 23 and with it being RAEME birthday, the Corps colours flew loud and proud with the Regiments RAEME SNCO, WO and Officers proudly displaying the tri-colour.



The RAEME Officers, Warrant Officers and SNCOs of 3 CER at the Regimental Dining Out Dinner

4th Regiment RAA TST

CPL Christopher Wilden-Zahra – ECN 146

2023 has been full of excitement. We started the year one fitter down due to the RCB Christmas rotation and little did we know that our manning would not improve throughout the year. The plethora of courses and exercises systematically reduced our people by half at any given time. However, even with this setback, TST has had a productive and rewarding year.



3D printed M777 replica by CPL Sean Watson

We've been lucky enough to be a part of International Engagement activities and Inter-Service exercises. We've also had an enthusiastic ex-4 Regt Corporal (4 Regt 4 Life) create some replica M777s, which were raffled to great success. With the accuracy that they've been designed and made, these replicas make amazing gifts and prizes for RAA members and TSTs within the regiments. I have one on my desk and it never fails to catch the eye of any passer-by. They come in a range of sizes too. I could write this whole article about them but for more information, you should get in touch the creator himself. (Green tree is your friend!)



RAEME members in the engine room of HMAS Canberra

Sea series this year was quite the adventure. There were seamen everywhere and our VM was eager to make friends with each and every one of them, he even cornered the captain of the ship, and you knew that he was the captain of the ship by the tobacco pipe he was sporting on the quarterdeck to relay some helpful tips from his perspective. Sea series saw us engage with multiple other nations, including Britain, Indonesia, Japan, Philippines, Singapore, South Korea and the United States. There was a British armourer equivalent who regularly interacted with our 1 RAR brethren, helping them with technical maintenance and recruiting them for his own maintenance. The exercises gave many the opportunity to conduct activities in unfamiliar territories with Australia's allies, via land, sea and air. Plus, we got to show off the speed of our gun line. Easily faster than the yanks.

During Sea Series, we found ourselves in Shoalwater, Howard Springs, and multiple regions in the Philippines. You best believe that we got off the boat every chance we got. I don't know how the navy could choose to live in that big tin can. My biggest pet hate: The washing situation. We had a 24-hour piquet, constantly rotating the washing through the industrial sized washers and dryers. Each load had clothes from 3-4 people and yet the job was never done. At least the boat provided a change of scenery from the regular day to day at the regiment.

Whilst half of the workshop was off on their adventure, the rest of TST was slaving away at the workload left behind. Not to mention all the other exercises occurring concurrently; Shot start, Chau Pha, Talisman Sabre, Nadzab, Bullroarer. All of which I'm sure were just as exciting as boat life and exploring foreign countries.

CPL Mark Dias – ECN 146 + CFN Pil Kim – ECN 229



CPL Dias and CFN Kim conducting maintenance on an M777 with a repair of a HX77 Gun tow vehicle in the background

The year kicked off at 4 REGT in January 23 with the ASM informing the two of us that we would be the A1 FR. We were warned by the chain of command that this year would be quite a busy one with the first live fire exercise right around the corner.

With the two of us new to 4 REGT, and relatively unfamiliar with an Artillery Regiment the task of supporting a gun line (Linear, Dispersed, Pistol and Danger Close) it would have been fair to say we were a little apprehensive.....

The battle prep was pretty standard, stocking up our medium maintenance module with everything we needed to effect repairs including but not limited to; pre-fire inspections, daily servicing and minor repairs. This was frequently inclusive of every tradespersons favourite tasking, operators bringing up equipment asking if there was any chance it could be completed before the field exercise. Needless to say “How long have you known about this?” was asked many times.

The exercise kicked off and it was great to see the Howitzer in action, the FRT was able to remediate multiple faults in both vehicles and M777s. Some of these repairs included mechanical adjustments (tuning the speed of the breech) and component replacement (PMV serpentine belt). With every day our FRT gained more experience in completing the daily maintenance required for optimal operation of the equipment. All in all, it was a satisfying feeling to watch how our trade skillset enabled the RAA members to continue operations. This was a recurring feeling for the field activities throughout the year.



The high tempo for field exercises this year was felt all throughout 3 Brigade. There was never any time to conduct refit to fight with post ex maintenance rolling straight into battle prep for the next activity. Over the period of the year our FRT would discuss how we could improve any identified maintenance shortfalls, inclusive of additional hand/ power tools and ST & E and certain spare parts that would be helpful to have on hand.

It was helpful to have direct communication between the FRT and operators as they would be able to alert me to potential problems far earlier than if they had put a maintenance request in. Liaising directly with the operators helped 4 REGT TST operate far more effectively.

5 RAR - TST

EMEOPS Section:

Overall, 5RAR has excelled in all aspects of RAEME. EMEOPs have supported an array of massive achievements within the sections. From supporting GE Marine section introducing two Regional Patrol Craft (RPC) into service; to supporting Vehicle section with the upskill of the new High Mobility Transporter – Supacat (HMT) maintenance course. Having a large number of vacant positions in the workshop would often persuade people to give up and “let the system fail.” Not 5RAR, the workshop stuck together, gave 110% and achieved everything and anything thrown at them. The pride and comradery in 5RAR workshop is second to none. 5RAR is looking forward to what comes in 2024.

VEH Section:

5RAR Vehicle section has had a busy year this year keeping the battalion vehicles in check for multiple exercises such as EX PACIFIC KUKRI 23 and EX PREDATORS RUN 23. There were also multiple drivers courses run this year tying in with the Indonesians and building international relations. Recently, 5RAR VMs among other Darwin vehicle mechanics were upskilled on the HMT super-cat maintenance course allowing a new vehicle platform to be used within 1BDE.

GE Section:

Throughout the 2023 period, General Engineering (GE) section maintained steadfast output of maintenance whilst being undermanned for long periods of the year. GE provided armourer and marine maintenance support to both battle group GOANNA and TIGER during EX PREDATORS RUN 23 and all support company basic courses run throughout the year. Within the marine section at 5RAR, GE have further developed a small boat maintenance capability whilst introducing RPC into the battalion. On EX PREDATORS RUN 23, due to mission complications a GE member was stranded on Melville Island, yet was still able to provide maintenance support out of his pack and a RUK box for both weapons, small and large watercraft on reverse cycle.

EIR Section:

5 RAR's EIR section has been very busy we have had half an elecyc throughout the year until they discharged midway, which meant the Boffins had to man up and actually do work, (which as everyone knows we really don't do much but get paid well because of it). Us Boffins took on a heavy weighted work group, but our work was foiled at the top because of tasking's. This meant we took much longer to get our actual work complete. The new radios had an interesting role out, filled full of different faults. Now we are ending the year with the BMS and PWS deficits.

REC MECH Section:

During the year of 2023 we have provided recovery support and capability for 1 BDE, but the most memorable job of 2023 was during EX PACIFIC KUKRI 23. At the start of the exercise an EMEFIX came through for Recovery Section to backload four PMV's; that had rear ended each other on the MSR at Mt Bundy Training Area. The complexity of the job required the assistance of a number of members of 5RAR WKSP, so we could reopen the road as quickly as possible; as civilian vehicles used it regularly.

5RAR Recovery Mechanics worked all day and throughout the night to provide recovery support for our USMC allies. A Humvee and 7-ton logistic vehicles got stuck approximately 50 metres off the main road during the same exercise requiring the 42M Medium Recovery Vehicle to un-bog the Humvee as quickly as we could to ensure they could continue their mission.

8/12 Regt RAA - TST

Artillery Littoral, What?

A house overlooking the ocean is littoral. A business is littoral if it sells things to people hanging out on the beach. However, who would have thought 8/12 REGT RAA would be littoral?

This year 1 BDE trialled the littoral concept, it was challenging, rewarding and very different for an Artillery Regiment.

It all started early this year when 1 BDE employed a civilian company to provide three vessels to test the concept of transporting Military equipment from Darwin out to a nearby Island. The intent was to establish a M777 Detachment in a defensive position to counter an Enemy Most Likely avenue of approach from the north. This is where the fun started.

Vehicle Selection

The first challenge, how do we get an M777 on and off the vessel without knowing what the landing site disposition i.e. sand, mud, wet, dry, undulating etc. We knew the 40M or the HX77 did not have the manoeuvrability needed, so we had to look at other options.

Trial 1 - A minute was drafted for the CO seeking permission to use the different vehicles within our fleet to see what would be most effective towing and pushing a gun on and off the vessel. First vehicle up, PMV. A circuit within 8/12s compound was identified and a gun was hooked up. After the completion of a lap around the compound, things were looking positive but it was evident that a number of SOP's would need to be written and implemented.

In order to provide the driver with a means of escape, during an emergency, the rear door would have to remain open, because it couldn't be opened when the gun is attached. It was also clear that a guide was required at the front and the rear of the vehicle to assist with the small movements needed to get the M777 into position. Sweet, time to move things up a notch. We hooked the gun up in an area with undulating ground and discovered one of the main limitations. The barrel struck the rear door due to the small turning circle. This caused minimal damage not to the gun but to the door, but hey, that is why we trial stuff right... So let's move on to the next vehicle.



Next up - Mini Manitou: We knew the Manitou would be able to tow as it has a towing attachment. However, we needed to test if the Manitou had the required manoeuvrability to guide the gun on to the vessel? After moving back and forth, back and forth, it quickly became surprisingly apparent that the Manitou did not have the ability to position the gun on the vessel without being time consuming and extremely frustrating. Ah well, let's try the Armoured Logistic Vehicle (ALV).

M113 ALV- Some refer to this vehicle as the Tilly although that is not strictly true. As it was a BDE trial, 1 CER (being the only DCU with an ALV) happily assisted and provided us with a platform. So back down to East Arm we went and hooked up the M777 to the ALV to see how we would get on. As you can see from the pictures it was tight but she went in no dramas. The ability to turn the vehicle on a dime allowed the gun to be pushed on different angles and get close to the sides of the vessel with relative ease. The trial was a huge success and we had found our vehicle.



12 people, two A2 Echelons...?

Trial 2 - With one BTY on an Island and one BTY on the mainland, TST where asked to provide a number of things. Firstly, contribute to two A2's to support each BTY. Secondly, to provide a maintenance facility in field that would allow the guns coming off the vessel to be inspected and pre-fired and allow deep level maintenance in the field; noting that the BTYs would be dislocated from any third line support. For the M777 qualified fitters reading this, you are probably thinking a pre-fire and deep level maintenance in field. We do not do that. Well now we do.

During initial conversations, the BC asked me if we could provide two A2's. My answer 'no we've never had two A2's'. His answer to that was 'well it's a trial, lets trial it'. OK.

The instruction was simple two A2's that mirror each other; two fitter trucks, two RPS, two Ammo, two Stores, Two Fuel, Two CP's, few problems... I did not have two of each variant and did not have the work force but we cobbled together what we could to meet the intent.

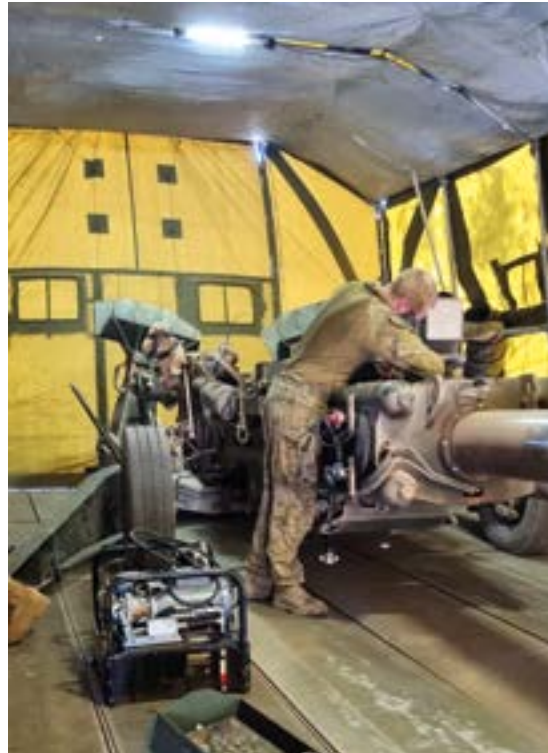
Requests were raised and JLU were able to acquire extra vehicles and a TPA for us. Next, task the work force. I had two VM's in the A1's so that left me with none... yeah, none. What about an OJT? This was considered, but as they aren't allowed to work unsupervised, the decision was made to have no VM in either of the A2's, crazy right? Again, remember this is a trial and we are testing what works and what doesn't. We also had to plan based on our UE not what we physically

hold at the time. In reality, the only risk was if a vehicle went down in the A2, we would have to call a VM back from the A1 rather than the A1 calling us forward. Another issue, the distribution of RPS. What spares do you put on what RPS truck? Do you put it on truck (A); sods law it is going to be truck (B) that needs it? A gamble, but it paid off. In general, the concept was a success and we achieved another successful trial. We can now provide two A2's with Fuel, Ammo, Stores, technicians, applicable trucks and a C2 node, fully manned.

A tent, we need a tent!

The second part of this littoral stuff was identifying a facility that would provide shelter and a comfortable working environment, out of the Darwin heat and dust. Have a quick think and see what comes to mind. Well what came to our minds was a 30ft by 40ft tent. What, a tent? You may ask, yes, a tent.

Q-store staff made enquires and surprisingly JLU had such a tent. CSS command team discussed what we would need to carry out the maintenance in the tent. Flooring, lighting, air-con, tooling, tables. The list went on, another challenge successfully overcome. With a couple of weeks to go before the exercise, the Q Staff picked up the tent with all the relevant equipment and we practiced putting it up, again testing a concept. Up she went, flooring in, lights in, air-con and of course the main ingredient an M777.



The CO came down to have a look, followed by the BDE Commander, both were very happy with the concept and approval to carry on with the trial was granted, which involved taking the tent and equipment to Mount Bundy. This is where Transport played their part, identifying that all the equipment fit on pallets and on one vehicle, along with a Manitou, thus, ensuring the capability was easily transportable and did not require additional platforms.

At this point, I would like to replace the word tent with Mobile Maintenance Facility (MMF) because that is essentially, what it is. Two weeks later, everything was packed up and we proceeded to Bundy. First job as always, recce the area, move all the vehicles in, and provide security. Second job; erect the MMF. I will go back a step and mention that we did this a number of times (4 times...) back in Barracks to assess time taken, manpower required and best practise, so the troops had it down pat. After two hours the MMF was ready to receive its first M777. Early the next morning, two M777's rolled through each receiving an inspection and pre-fire and were pushed out to the Gun BTY shortly afterwards. We also had a couple of M777's that went down during the Ex, one being the braking system and the MMF was given an opportunity to prove its worth. Normally we wouldn't open the hydraulic systems in a field environment due to contamination, however, now we can, we did, and the guns all got returned to action.

We're almost there..

Overall a very successful exercise. The Regiment trialled new things and learned what to do, and more importantly, what not to do. Something, which I would like to highlight, is the way CSS BTY worked as a team with every element getting involved. From the digger truckie to the RQMS, we all worked together to meet the BC's and CO's intent. I would like to finish on a very important factor; the Troops loved doing something new and different from the norm with two members asking for a year extension at 8/12 and one member putting in a P166-2 to come to 8/12. I also put in a P166-2 to remain the ASM as I was initially only a stand in. So if you are thinking of getting out, and a lot are, have a think about 8/12 Regt. It will be challenging, but I assure you, it will be hugely rewarding.

9 CSSB

A Year of Transition and Growth: Reflecting on 1 CSST Workshop's Journey in 2023

LT Lily McIvor



1 CSST Workshop members during Exercise Southern Tiger 23

The year 2023 marked a significant period of transition and growth for the 1st Combat Service Support Team (1 CSST) workshop within the 9th Combat Service Support Battalion (9 CSSB) operating under the 9th Brigade (9 BDE) in South Australia. This transformation brought several opportunities and challenges that shaped the workshop's identity and capabilities. Looking back on the past year, it becomes evident that 2023 was a pivotal year of change and progress for the 1 CSST workshop.

Embracing New Horizons

As 2023 unfolded, the workshop was optimistic and enthusiastic as it looked forward to its prospects under the 9 CSSB banner. This provided an opportunity to integrate with the reservist workforce at Warradale, showcasing the modern and hybrid SERCAT 5 and SERCAT 7 workforce and the unique capabilities they bring.

Training and Exercises

The year was marked by a dedicated commitment to training and exercises, with the barracks Army Training Levels (ATL) 1-3 training readying the workshop for its initial foray into the field - the much anticipated Walk Series Exercise throughout May 2023. During this exercise, the workshop was pivotal in providing maintenance support to two Battle Groups, BG LION and BG BOAR,



1CSST/7RAR workshop during the 7RAR M113 AS4 Maintenance Surge 2023

within a tactical environment. With the support of our integrated SERCAT 5 RAEME colleagues, we effectively provided FRT support to various capabilities throughout the Cultana Training Area.



Workshop members supporting 1ARMD during Exercise Southern Tiger 23

Amid the year, many support opportunities unfolded for the workshop's members, both internal and external to the brigade. However, a standout among these was the 7RAR maintenance surge. During this phase, several M113 AS4 Vehicle Mechanics from 9 CSSB (inclusive of SERCAT 5 and SERCAT 7) were detached to bolster 9 BDE's maintenance capacity, specifically focusing on preparing a fleet of AS4s to facilitate operations related to Ukraine. This task marked one of the workshop's most demanding periods, providing members with a unique opportunity to demonstrate their maintenance expertise and collaborate effectively toward shared objectives supporting Australia's national interests.

As the year drew to a close, our final exercise in September underscored 1 CSST's (L1) instrumental successes in providing logistics support to 9 BDE's dependencies and attachments. The workshop's strong collaborative spirit was evident as they

partnered with the Malaysian Army Contingent and seamlessly integrated their training with 9 BDE Reserve units. A standout element of this exercise was L1's execution of diverse FRT missions.

Challenges and Opportunities

In late September, after the release of the Defence Strategic Review, significant changes unfolded for 9 BDE concerning Army units and formations. These changes introduced a range of challenges and opportunities, notably in terms of the clarity surrounding future logistical support in South Australia. Consequently, most of the workshop's members found themselves reassessing their career plans and how to effectively take their unique and new skill sets into the future. While the uncertainty surrounding the future of the 1 CSST workshop does present challenges, it also underscores the crucial role we will play during this process.

A Year of Transformation

The 1 CSST workshop has always been complex due to its geographical location within Adelaide, its shared workshop with 7 RAR, and its size required to support two Battle Groups. However, 2023 was a year of transformation, thanks to the efforts of dedicated individuals. The workshop made notable progress in processes, procedures, and culture, becoming a source of pride and optimism.

This article only begins to capture the broad amount of support activities members within the workshop supported this year. Their dedication and commitment to the 9 CSSB mission have been instrumental in the workshop's progress and success throughout 2023.

However, it's essential to acknowledge that this progress was made possible through the collaborative efforts of neighbouring workshops within the 9th Brigade, underscoring the significance of teamwork within RAEME SA.

In retrospect, 2023 was a year of transformation and growth for 1 CSST workshop. As it navigated through transitions, training, and challenges, the workshop emerged stronger and more capable.

9 Force Support Battalion

ANZAC Day 2023

CFN McCloy



One of the most honoured traditions for a serving member every year is ANZAC Day. A day where current and ex-serving members put their differences aside and gather to remember the sacrifice of those that have gone before us. This year was no different and a strong contingent of RAEME personnel from 9 FSB was assembled to make the journey from RAAF Amberley to Mullumbimby some two hours down the coast. This hardened crew consisted of a mixture of 11 members from Close Maintenance PL and Technical Support PL as well as the 9 FSB ASM, WO1 Dowd.

Mullumbimby is a relatively tight-knit country town just north of Byron Bay. Members who have partaken in ANZAC Day proceedings in country towns before know all too well how special it can be. There was a certain buzz throughout the community from the minute our bus arrived the day prior, as we stepped out into the street to practice at the cenotaph. The RAEME team were accommodated by the rugby league club and in true RAEME fashion, swags were deployed for maximum comfort.



ANZAC Day commemorations began with the sharply dressed catafalque party consisting of CFNs McCloy and Goddard, LCPLs Dixon and Doyle and CPL Goodwin taking up their positions around the cenotaph, in front of a proud Mullumbimby community for the dawn service. The ceremony included guest speakers from the Mullumbimby RSL and local members keen to stand shoulder-to-shoulder with the Army's finest.

After the completion of the dawn service, everyone moved into the RSL for a well-earned coffee and breakfast to recharge the batteries. This gave locals the chance to share stories and have a laugh with the team before they headed back out into town for the day march. The march through town during the day was a great chance for some top notch drill to be displayed by the team led by LT Goad.

The day service attracted a lot of attention from locals of all ages and it was fantastic to witness the involvement of the younger generation in paying their respects; through the reading of written passages and partnering up with veterans to lay wreaths.

Following this service, it was time to show Mullumbimby a glimpse into the esprit de corps shared amongst the RAEME brethren inside the RSL. This took the form of copious amounts of two-up which saw LCPL Doyle become a local celebrity to some and a villain to others. The RSL were extremely hospitable to the team and ensured that nobody was left dehydrated for the duration of the day.

Being granted the opportunity to share a special experience in uniform doesn't necessarily mean deployments or kicking in doors, it can be as simple as an ANZAC Day spent in a small intimate setting. For any young crafty looking for a way to celebrate ANZAC Day in a truly meaningful way, get yourself and your mates to a country service; you definitely won't regret it.



9 Logistics Support Coy Talisman Sabre (TS) 2023



TS 23 began with an early departure from RAAF Base Amberley. We almost made it to the front gate before our first casualty/breakdown – a 40M with a fuel issue. After the aspiring FRT VM (and also the driver of the truck) kicked a tyre, mentioned ‘She’ll be right’ we were off again. Northbound like a game of snakes and ladders IOT abide by the latest and greatest permits, we made our way to Rockhampton.

After a night in SEG Rocky, and an unintended route or two, (not including a trip through a Bunnings carpark with a 40m and trailer), we arrived just past the ‘field of dreams’ and Camp Growl.

Real estate was claimed by EIR, with river side views from the torrential rain that ‘never happens in Shoalwater’.... Then we set to work, setting up our maintenance modules, Coffee point, TV and the Nintendo Switch.

The next 4-5 weeks were spent spinning up FRT’s to Sabina Point, (with a swag and fishing rods on hand in case DRTM’s kept us over night somewhere) running the Congo Coffee club as a mandated duty, and ADHOC repairs around the area. Recovery mechanics were kept busy entertaining OJT’s and recovering US vehicles off the ocean floor.

In the event of a rare moment of downtime, there was the opportunity to educate the Transport Corp operators on ‘lefty loosy, righty tighty’ on the shower buckets, then proceeding to fix thy said buckets from being overtightened. Advice was offered to some SNCO’s from the Q-store that a field EMEFIX for some rope to be tied to a shower bucket wasn’t required. That was, in fact, an operator task.

Morale was high amongst TSP. After setting up the \$110K (non-deployable) deployable TAC FIT Gym, some friendly competition was generated amongst the camp by the daily record of anything you could think of really. Longest plank, heaviest bench press, most BFA sit ups (PB of 100 was set by the aspiring TSP PL COMD, for a few hours at least). There was even a tally for number of piquet’s missed/no show. Officers held the lead, 7 – 5 OR’s. In the OR’s defence though, it turns out having a vegan diet can’t sustain your body past day three of any field activity. Luck would have it, custard eventually identified as vegan friendly.

Fitness was maintained not only by the TAC Fit gym, but a daily run (that RPS was too busy to attend), as well as a weekly round of ‘bush fines’ for any mistakes made that week. The fines were paid in the form of push ups, and must contain at least 5% truth (which coincidentally enough, would cover a name and section). Fines were nominated for things such as:



The boss navigating through SWBTA

- Anyone late for piquet (EIR)
- Anyone that ran out of fuel on the drive up (EIR)
- Anyone not able to lend a GMM for an FRT as it was powering a laptop for a movie (EIR)
- Any co driver who fell asleep whilst conducting a navigation by vehicle exercise (Boss, see pic)
- Anyone who hadn't yet caught a fish (all pers minus three)
- The list went on

State of Origin would have been celebrated, but a civilian truck high tailing it home in time for kick off, decided not to stop for the gate, so a piquet was stood up with a 5min notice to go man the front gate as it was getting dark and the MP's had an origin to get too....



Any griefs were settled with a goanna wrestle. Any disputes were settled the same way



Workshop members supporting 1ARMD during Exercise Southern Tiger 23



Metal Smiffs were kept busy fabricating more weights for the A/ASM



A local Crafty in his natural habitat on the local parts runner - deadly peddly



No deadly peddly's were hurt in the making of EX T.S



RPS Tim, learnt that a stick through a portaloos door handle (that opens outwards) wont contain anyone. We demonstrated the correct way by ratchet strapping his door closed on his next morning poop. All in all, we made the most of every opportunity and had a cracker of a good time.



Recovery section TS 23

9 LSC Recovery section deployed to SWBTA to provide Recovery support to 9 FSB and the surrounding battle group. We were tasked with conducting operations within the SWBTA area and outskirts of the bay, our AO was from Mackay to Brisbane. We were the on call Recovery team for a multitude of units that moved through the AO.

Upon arriving, it was clear we were the only capability within the area that could conduct Recovery and lifting tasks. The partner nations being America, Korea and Japan were in our vicinity and requested that we support convoys and conduct tasks for them. The partner nations immediately saw that our assets and capabilities could be used to assist them. Combine this with the experience and knowledge of a couple of Recovery Technicians (RT) and they now consider that Australia's recovery capability is the premier recovery capability in the world.



Our first task upon arriving in Rockhampton was a rollover on the highway with 6ESR, the RT from 6ESR was already on the scene and we had to wait to be released. 6ESR did a fantastic job and got the vehicle back on its wheel and we assisted in moving it off the side of the road. The task was a four phase task: with a rollover; then a winch to move it into a good location; then onto a lift tow; and a lift onto the trailer. Excellent reversing skills from 6ESR and great crane control from 9 FSB were required to complete the job.

The second task was a late night wakeup call from the PLT SGT at 1030PM, the minimal information we had was enough to send us out the door. It was two American vehicles



that were stuck approx. 70m off the beach, not a problem. We moved from Camp Growl to Sabina point and arrived around midnight looking at three vehicles and a trailer approx. 170m off the beach fully submerged. The recovery started once the tide went out and we could see the vehicles, around 0300. We had approx. 20 marines come out of the bush, once their chief shouted at them and they carried all the straps and chains with ease.



The vehicles were pulled out with the 45m's 25t winch and recovered onto flat level ground, then we had the task of lift towing these vehicles onto the American hovercraft, all in all a great experience and job. The American wrecker is seen here moving the JLTV onto the ramp of the hovercraft, however it took a lot more adjustments for them to get up there than it did for us, just saying.



Close Maintenance Platoon Detachment – EX TALISMAN SABRE 23

SGT M Armstrong

In the days leading up to the start of TS 23, a long awaited uniting of the Close Maintenance Platoon (CMP) detachments occurred at Lavarack Barracks (all bar the Amberley based team who managed to swan it up in the much fancier E&IG Rockhampton!). This would be the first time in many years the CMP had come together to support a large scale training activity. The combined workforce of the CMP would rival the manning of a CSSB WKSP COY!

Over the duration of TS 23, where the cacophony of military manoeuvres and strategic planning echoes, an unexpected camaraderie emerged. Enter the RAEME men and women of Force Support Team Two (FST 2), made up of support personnel from all Force Support Battalions across Australia.

Armed with 10 rounds each and spec tooling for days, the team was ready to take on any challenge sent their way. While actively contributing to the defensive occupation of the Ingham Showgrounds, the FST 2 Forward Repair Teams (FRTs) were confronted with complex yet rewarding experiences.

If you asked any of the CMP members about the “Corn Field” job, they will likely have a laugh and think back to the BG Waratah PMV breakdown that proceeded into a contact mid repair; or if you brought up the brown snake at Andy’s Road House, you’d probably get directions to Billabong Sanctuary as every man and his dog within 10 grid squares had seen it; alternatively, if you muttered the call sign “L28A” in the presence of LT S (name redacted due to PID), you would likely hear about the RoadTek tactical response scenario that evolved at 12:06am on a Monday.

If it wasn’t for engaging yet challenging experiences like these that workshop members of CMP and 10 FSB were able to participate in, we wouldn’t have great stories to pass on to the RAEME “brotherhood” each year.

Overall, TS 23 for CMP was a positive experience with many lessons learned and valuable feedback to pass on for future training.

Arte et Marte.

9FSB Ex Talisman Sabre 23 Support to RAAF Darwin

As a part of 9FSB Workshops contribution to Talisman Sabre, GE sent one member to accompany 8 PERT in support of a joint equipment trial between the RAAF and Army. Specifically, the trial was to assess the viability of a mobile fuel mixing unit that converts A1 Jet fuel into F34 jet fuel. To complete this task, we road moved up from RAAF Amberley to RAAF Darwin, experiencing the miracle of all the MAN trucks arriving on time and without breaking down, crashing or catching fire.

Upon arrival the team went through a briefing on the operation and maintenance of the fuel mixer from the equipment's manufacturer. After the briefing we proceeded to setup the fuel farm, in the process we conducted the initial testing of the mixer in preparation for use in refuelling F18F and F18G aircraft the following week.

The next two weeks entailed trials of the equipment, mixing fuel for both hot and cold turns of the aircraft, what the RAAF call "agile ops". However, personally I didn't see anything agile about the pilots sitting around for an hour having tea and biscuits. It soon became apparent that the drive up to Darwin, had rattled almost every nut and bolt loose from the fuel equipment, resulting in a near constant stream of leaks requiring fixing.

Overall the trial went well, as no aircraft fell out of the sky as a result of bad fuel. Although, I do foresee a potential maintenance nightmare coming with this mixer. Given it will in all likelihood be a RAAF owned asset, that falls under Army's maintenance liability due to it being used exclusively in Army fuel distribution farms. That is unless the RAAF decide to raise a unit of similar composition to Army's Pet Ops team.



9 FSB US LBE TASK 2023

Over the past few years, 9 FSB have faced tasks that have challenged the workshop with tight deadlines, manning shortfalls and parts supply issues, but none more so than the US Left Behind Equipment (LBE) Task of 23. This task revealed the importance of strong workshop cohesion, attention to detail, as well as the need for all members to remain flexible and positively influence change in order to achieve a common goal. A task, that seemed to be almost impossible to achieve at the start while maintaining the Battalion's capability, proved to be instrumental in uncovering issues with a new fleet of vehicles, and the experience gained will influence capability for the wider fleet into the future.

Ex TS 23 had just concluded and the workshop was back to its 100% manning, however undermanned that may actually be. Within a week we received a Warning Order (WNGO) that we would be assisting the US Army with transporting hundreds of pieces of equipment from Gladstone Port, QLD, to Bandiana, VIC. This was to consist of three separate convoys operating in a stagger, made up of 10 trucks and 10 trailers each. Two convoys would be made up of HX77's with a combination of ILHS and 23T trailers, and one convoy of HX81's with a combination of 45ft semi-trailers and MET trailers. In addition, the Battalion's white fleet of T909 Kenworths were to operate as their own entity. In total, there would be up to 40 trucks to be on the road at any one time. The duration of the task was to be six weeks, with a round trip of 4,000km being completed each week, a total distance of at least 24,000km, with some vehicles completing in excess of 30,000km.



Jack Elder aka "The MAN Truck Whisperer"

The challenge was accepted by the undisputed leading SME's on the L121 fleet, 9 LSC TSP. We knew that manning was going to be the biggest issue, requiring members on the road as the FRT's, whilst still being able to maintain equipment back at the Battalion. However, we found comfort knowing that we had 17 BDE Soldier of the Year, CFN Jack Elder, also known as the MAN truck whisperer, heading the charge. With the manning sorted out, the next challenge was to forecast the parts required on the road, as well as scheduling the maintenance so that all vehicles could be serviced during the task. This required the members left behind to work extended hours and weekends in order to ensure that the vehicles could arrive, be serviced, and be back on the road the next day. This proved to be an overwhelming success. During the six weeks

on the road, there were very few days that we didn't conduct repairs at the end of 10-12 hour road move, ranging from small repairs to component rebuilds, all conducted on the side of the road or at truck stops. The planning for the parts required proved to be instrumental in the success of the task, as we only lost a few vehicles to major component failures, none of which could have been foreseen or even rectified on the road. The knowledge and experience of the TSP mechanics ensured that most issues had been anticipated and were able to be rectified in place, keeping the convoys moving without losing capability.



CFN Jack Elder, 17 BDE Soldier of the Year

The task provided a rare opportunity to test a fleet of vehicle in its infancy by accumulating more kilometres in six weeks than most L121 vehicles do in a year. This meant that we were able to identify issues years in advance to what the vast majority of the vehicles in the fleet will see for years. This resulted in the submission of a number of RODUM's highlighting shortfalls with the fleet, as well as influencing engineering changes that will ensure the fleet becomes much more capable and reliable into the future. CFN Jack Elder saved Defence millions of dollars by discovering the cause of the transfer case overheating problem, earning himself an all-expenses paid trip to Sydney to attend a week of briefs in lecture theatres. The capability that Jack has provided the L121 fleet is undisputed and unparalleled.

As a whole, the LBE task was an overwhelming success for all members involved. The knowledge and experience gained will be passed on to junior crafties as well as vehicle workgroup managers of the L121 fleet.

Pilbara Regiment Workshop

ASM and Boff

The Pilbara Regiment Workshops welcomed the following new members into the workshop this year;



WO2 D Shepherd (ASM)
SGT B Medway (Boff – Sercat 5)
CPL R Wilco (Fitter/Marine Specialist)
CPL T Arthur (Boffin)

These members joined the remaining members from the previous year;

SGT J Osborne (VT)
CPL L Smith (VT)
CFN C Bullen (VT)
CFN J Kelly (Wpns Tech/ Marine Specialist)

SERCAT 5

WO2 A Smithers (Elec)
CPL S Morton (VT)
CPL G Russell (VT)
CPL M Stevens (Wpns Tech/Marine)
CFN C McCain (VT)

The Pilbara Regiment (TPR) is a unique posting, located in the remote Pilbara Region of Western Australia. The regiment is one of the three Regional Force Surveillance Units apart of the Regional Surveillance Group, hosting both ARA and ARES members across three Squadrons and covering 1.3 millions square kilometres, with depots located in Perth, Geraldton, Carnarvon, Exmouth, Tom Price, Newman and Port Headland. These FOBs are all supported by the Regiment HQ, Operational Support Squadron which is located in Karratha, at Taylor Barracks.

The Operational Support Squadron (OSS) consists of a HQ, Workshop, Q-store and Transport (consisting of marine and road). The squadron is responsible for support to individual courses, (OSW, RPC, drivers courses etc) and collective training such as Regimental activities, exercises, patrols, Forward Repair Teams and community engagement. We also support domestic operations such as Operation RESOLUTE.

Our role within the workshop is to keep the regiments equipment consisting of vehicles, communications equipment, weapons systems and of course boats. With a small workforce within the workshop, it is a very busy lifestyle, with little down time, because after activity we refit to fight to support the next task. Whilst completing any repairs on the fleet that has just returned. These activities could be supporting an On Country Patrol, Op RESOLUTE or one of the many internal courses run in any of our locations.

The workshop will conduct annual FRT's to each depot during the year. We can only manage to do each location once due to the distance from Taylor barracks This provides us with some vital insights and behaviours of the user, we enjoy the educating the equipment users in preventative maintenance. During these FRT's we conduct your usual maintenance including services and repairs on vehicles, weapon, radio inspections and everything in-between. The ASM even manages to TA and get dirty.



The Regiment continues to build strong relationships with the local and greater community of the Pilbara region. We frequently assist and support events alongside our ARES members who live and work within these areas, we find this to be a great opportunity to give back to the communities who support us. These engagements include the FeNaCING Festival, Career Expos and NAIDOC week activities.

Regardless of the red dirt, remote locations and harsh summer weather that the Pilbara Region is famous for, it also has amazing landscapes to visit along with remarkable sunsets over the water. The Pilbara Regiment has a great Family Group where the members and their families are able to forge close friendships through social events held throughout the year.

The finish to the year, saw RAEME Birthday and ASM's golf day rolled into one. The ASM made the rules up as he went along and after 9 holes, golf was the winner. We enjoyed a RAEME layered cake (made by the Boffin baker) and celebrated the day with the rest of The Pilbara Regiment invited along.

Promotions to L/CFN – Cal Bullen, Jayden Kelly and Clinton “Chips McCain . Farewell to Jamie Osborne to Mr Civie and Jayden Kelly to 5 RAR.



ASEME

ASEME Spanner Club 28 Jun 2023

Electrical and Electronics Systems Wing (EESW) conducted a Spanner Club for ASEME at North Bandiana on 28 Jun 23, to promote Esprit De Corps with the future crafties and foster interactions between local businesses, service providers and clubs. There were approximately 350 members in attendance, allowing not only the trainees to engage with the services available to them, but also allowing local veterans of the Corps to remain connected.



Even though the weather was typical for winter in Wodonga; cold, wet and miserable, it did not stop those in attendance from enjoying a Two Pot Brewery schooner and Papa Bears barbecue which were supplied by the Star Hotel, Yackandandah.

Other attractions included; an armoured vehicle show and tell, with a smoke screen from a M1A1 Abram; carnival activities and raffle prizes supplied by local businesses, who were also in attendance bolstering the already strong community ties.

A shout out to goes to Blackwood's, Narva, CRC, Force Element, DMFS and Will Keenan's electric vehicle display for putting up with the conditions.





Combat Training Centre – Workshop 2023

ASM – WO2 Marko Benazic

EMEOPS – SGT Darren Price

Vehicle Technicians – CPL Terrence

Gordon & CFN Tim Allen

Weapons Technician – CPL Jared Troy

Energy Technician – CFN Joshua Smith

Jan 23 saw the arrival of the new ASM & EMEOPS SGT, pushing the acting EMEOPS SGT Terry Gordon out of the A/Con office and back onto the tools. He was not a happy camper to say the least.

Late Feb 23 saw the medical separation of Tim Allen which was a big loss to CTC. He left some big shoes to fill and will be sadly missed by all who had the pleasure of working with him. We wish Tim and his family all the best and a successful life back in Bris-Vegas as a civilian.

With increased support provided by JLU-NQ, Terry Gordon was able to keep the vast majority of the vehicle fleet on the road and available to support the long list of CTC activities.

Mar-Sep 23 saw CTC deploy on back to back activities, in various and multiple locations across Australia at the same time. These multiple activities were primarily supported by the RAEME FRT made up of Terry Gordon, Joshua Smith and a healthy supply of trade OJTs, with the occasional relief in place by Jared Troy. All in all, CTC Wksp were able to provide just enough effective maintenance support to meet all CTC requirements, achieving all activity commitments including EX TS23. This was also a fantastic opportunity to meet and engage with our counterparts from several of our partner nations (REME, RCEME, RNZEME and US Army Maintainers) and host them on FRTs throughout the various TAORs. They were certainly very impressed with the capability of the GMM 'A' framing a G-Wagon casualty through some of the rougher terrain we have to offer at TFTA.

The EMEOPS role was being held together by Darren Price who had now developed a close and personal relationship with JLU-NQ personnel, which saw a lot of begging, crying and MILIS DER inspired tantrums but overall a great job.

The CTC Wksp manning is very finite, so EX TS23 saw myself as the ASM deploy for 5 days in support of a MP traffic control task. I did however, enjoy the break away from emails, phone calls, LMM audits and MILIS.

Somewhere among the Mar-Sep madness, CFN Jared Troy was promoted to CPL. Congratulations and well deserved. Also, Sep 23 saw CPL Troy and his wife Emily, welcome their first child. Congratulations to you both.

Late Sep 23 saw a well-deserved break for CTC with a 4 day RTP, allowing personnel to regather for the final push to the end of the year.

Nov 23 finally arrived and we saw the return of Joshua Smith from SUB1 CPL where he narrowly missed out on SOM, and the return of Jared Troy from four weeks' paternity leave.

Of note, CFN Joshua Smith received a Bronze Soldier's Medallion for his excellent efforts keeping CTC energy needs met. Congratulations. Josh Smith and his wife Naomi are expecting their first child in Dec 23. Must be something in the water at CTC.

We would like to take this opportunity to thanks the posted out personnel for their dedication and hard work in supporting CTC during their tenure. CPL Jared Troy is off to 1st Regt and CFN Joshua Smith to 3 CSSB. Once again, thanks to both for their professional and diligent work attitude.

Let us hope 2024 is NOT as eventful as 2023.

JLU(E) Hunter Valley

CPL Brent Nash

Co-located with the School of Infantry (SOI) at Lone Pine Barracks in Singleton NSW, the Hunter Valley detachment of the Joint Logistics Unit – East boasts the highest strike rate of forklift qualification and air fryer ownership of any unit in the corps**.

The detachment features three uniformed armourers and our primary responsibility is to provide maintenance support to School of Infantry (SOI). Infantry IETs (and some more experienced personnel) keep us busy with a never-ending stream of equipment breakdowns and perfectly written and ‘not at all difficult to understand’ Suspected Fault tags to aid in our fault analysis and repair. Technical Inspections are conducted on all weapons at the end of every IET session, which ensures that available productive hours are never in short supply.

We also provide 24/7 on call support to any range activities being conducted in the Singleton Military Area. Thankfully, range support is a breeze with the aid of our trusty and one of a kind 79 series Land Cruiser complete with workbench, vice, and comprehensive Ready Use Kits.

In addition to SOI, we also provide support to ARes units including 12/16 HRL, 41 RNSWR, and 2/17 RNSWR. This support peaks each year with FRTs to Tamworth, as well as teaming up with our ARes brothers from 8 CSSB for a refreshing and scenic FRT to Coffs Harbour and Lismore.

This year has seen us wind-down support to RAAF Williamtown, where we were previously handling all scheduled and breakdown weapon maintenance. We are sure this is entirely attributable to their supporting MEOMS recently gaining a former RAEME Craftsman of the Year winner. Looks like you can’t keep a good spanner down, even if they have fallen to the dark side.

Our long-standing community engagement partnership with the Cessnock Men’s Shed has continued including a site visit to our new vehicle repair workshop (APS/Contractor managed) and a static weapon display. They have reciprocated with a tour of their facilities and a quality BBQ lunch.



Overall, it has been a busy and fulfilling year for our small team. Thankfully, a slight reduction in tempo from last year has allowed for career courses to be conducted without crippling our ability to provide support to our dependencies. At time of writing we are sitting on a cumulative total of 3147 Technical Inspections, down from last year's total of 4688, where each fitter averaged over 40 hours productivity per week throughout the year. But with SOI running eight concurrent IET sessions and support to RAAF Williamtown set to 'switch back on' in full for 2024, we could be in for another record year as the tempo builds again.

JLU(E) HV RAEME element 2023:

- SGT Mitchell Bell
- CPL Jake Closter
- CPL Brent Nash

(** Not confirmed as fact)

JLU(E) is a large and diverse logistic unit who's main site is at Moorebank in south-west Sydney, with detachments at Hunter Valley, Williamtown, Richmond, Nowra and Canberra. The Unit has a very large maintenance effect which includes most types of ground equipment and watercraft for the NSW region, and is the primary support unit for Medical and Dental Equipment across the ADF nationwide. This work is largely carried out by contractors to Defence (Ventia and Serco) who are overseen by two RAEME warrant officers and a small APS staff (many of whom are ex-RAEME).

JLU(E)'s Hunter Valley detachment is an exception to this, where our three RAEME Weapon Technicians are the hands-on workforce and have very little redundancy. They conduct a phenomenal amount of work to support a training establishment that produces a high demand for repair and inspection of weapons with short timeframes and high expectations. JLU(E) proudly supports the recognition of all three members by the Master Artificer for ECN 146, as having demonstrated a superior level of technical competence and effort to deliver crucial effects in support of Army capability. Each have been awarded the Master Artificer's "Weapons Grade" coin in recognition of their efforts.

Ex-Army Apprentices working at 5 Avn Regt

Ex-Army Apprentices still working in Defence at 5 Aviation Regiment in support of the MRH-90 Taipans and the CH-47F Chinook and providing spiritual guidance to the unit.



- William “Bill” Hales, 32nd Intake VM. Aircraft Technician with Airbus Australia Pacific, supporting MRH-90 choppers.
- WO1 Danny McInnes, 44th Intake Electrical Tech. Contractor Advisory Representative for the Cargo Helicopter Management Unit.
- Vince Close, 28th Intake Mechanic Vehicle. Chinook Logistic Co-ordinator for the Cargo Helicopter Management Unit (last day with Defence will be the 6th Dec 23. Just shy of 51 years with the ADO.
- Ken Davis, 42nd Intake Mechanic Vehicle. Aircraft Technician with Airbus Australia Pacific, supporting MRH-90 choppers.
- Chaplain (MAJ) Frank Langford, 35th Intake Musician. 5 Aviation Regiment Chaplain.
- Paul “Baz” Brenton, 37th Fitter & Turner. Technical Publications Officer.

9 Brigade Cocktail Party

MAJ Katherine Green with friend, Keith Davis, enjoyed a relaxed evening at Keswick Bks Officer's Mess Cocktail Evening to bid farewell to outgoing Commander of the 9th Brigade, BRIG Goodwin.



AWARDS

2023 Craftsman of the Year (COTY) Recipients

National CFN of the Year

	Rank & Name	Unit
ARA	CFN Joel Gandy	2 RAR
ARes (Duel recipients)	CFN Carl Leeworthy CFN Kelsey Patterson	4 CSSB 13 CSSB
Regional CFN of the Year		
South Queensland Region	Rank & Name	Unit
ARA	CFN Johnathan Clem	7 CSSB
ARes	Nil Noms	
North Queensland Region	Rank & Name	Unit
ARA	CFN Jayme Nicholson	3 RAR
ARes	Nil Noms	
VIC/TAS Region	Rank & Name	Unit
ARA	Nil Noms	
ARes	Not awarded	
NSW Region	Rank & Name	Unit
ARA	CFN K	SOER
ARes	Nil Noms	
SA Region	Rank & Name	Unit
ARA	LCPL Connor Bilby	1 Armd Regt
ARes	CFN Charles O'Grady	9 CSSB
WA Region	Rank & Name	Unit
ARA	CFN Luke Cox	SASR
ARes	CFN Patrick Siviour	SASR
NT Region	Rank & Name	Unit
ARA	CFN Nicholas Wellington	1 CSSB
ARes	Nil Noms	

Junior Regimental Award (Sub 2 SGT)	
Rank & Name	Unit
CPL Jack Peters	ASEME
Regimental Award (Sub 2 WOCSS)	
Rank & Name	Unit
SGT Benjamin Alderson	CTC
BRIG HLC Martins OBE Award (Sub 4 SGT)	
Rank & Name	Unit
CPL Jordan Van Den Berg	JEWOSU
Artificer of the Year Award (Sub 4 WO)	
Rank & Name	Unit
SGT Leino Ahlstedt	9 FSB
LT Peter Jennings Award (LOBC)	
Rank & Name	Unit
LT Corne Wiid	2 RAR

MAJ Stephen Howells 3rd Federation Star



On Sunday 17 March 2024 members of AG-A, ACAU, friends and family gathered at Gallipoli Barracks to witness a stalwart of the corps, MAJ Stephen Howells, be presented his 3rd Federation Star for 50 years' service to the Nation. The award was presented by the COMD 2 (AS) DIV MAJGEN Thomae AM and the RSM of ACAU WO1 Vote.

MAJ Howells enlisted into the Australian Regular Army on the 17 Jan 1973 as an Army Apprentice Radio Mechanic. Following his completion of On Job Training he was selected to specialise as a Radar tradesman; this meant he was sent to the UK in 1978 for 7 months to complete the third of three Aust Army Rapier maintenance courses (a Ground to Air Missile System), where he also celebrated his 21st birthday. Years later he also completed the first Aust AN-TPQ-36 Radar maintenance course (Weapon Locating radar), conducted at the School of Artillery, Manly.

His postings have included: Army Apprentice School (Balcombe), 3 Base Wksp, 101 Field Wksp, School of Electronic Engineering (UK), 16 Air Defence Regt, Army Apprentice School (Bonegilla), School of Artillery, Directorate of Capital Procurement Melbourne, 131 Divisional Locating Bty, RAEME Trg Centre, Proof & Experimental Establishment - Port Wakefield, Army Acquisition & Engineering Agency, Army HQ (Directorate of Technical Regulation - Army), HQ 7 Bde, Joint Logistics Command, Defence Community Organisation and Army Compliance & Assurance Unit.

MAJ Howells' career saw him promoted through the ranks from CFN to WO1 before being Commissioned to CAPT in 2001. 2015 saw him separate from the ARA after nearly 43 years' full time service and transfer to the Army Reserve.

After over 30 years' service, a highlight of his career was the opportunity to deploy on OP CATALYST – Iraq in 2005 as the Logistic Advisor to an Iraq Army Battalion Quartermaster and OP SLIPPER – Afghanistan in 2010 as the Training Team Second-in-Charge and maintenance/training advisor to an Afghan Army technical school.

MAJ Howells has had many other career highlights. Being involved in the Introduction into Service of Army equipment (Rapier, AN-TPQ-36 and the Tactical Engagement Simulation System), which no matter how well planned always brings with it many issues that require solutions. Another was his posting to DCO, assisting defence members and/or their families in times of need or tragedy.

In addition to working for ACAU as a Non Public Money Account Trainer/Advisor/Auditor, MAJ Howells is currently the RAEME SO2 Corps and works for HQ 7 BDE managing the Gallipoli Barracks Community Centre facility and organising on-base events such as open days and carols by candlelight.

At his presentation MAJ Howells acknowledged his immediate and Army family for their support provided over the years; without which his extended service would not have been possible.



MAJ Howells has been awarded:

Defence Force Service Medal with 1st, 2nd, 3rd, 4th and 5th clasps. (This award was subsequently superseded by the DLSPM).

Defence Long Service Medal with 5th (1st Federation Star) and 6th clasp (2nd Federation Star).

Australian Defence Medal

Australian Active Service Medal with Clasps IRAQ 2003 and ICAT

Afghanistan Medal

Iraq Medal

NATO Non Article 5 Medal with clasp - ISAF

MUC22 - Meritorious Unit Citation - 1st

Mentoring Task Force - Afghanistan

20 January to 30 October 2010

81ST RAEME BIRTHDAY

ASEME RAEME Birthday

As the home of the Craftsman, ASEME hosted the 81st RAEME Birthday Celebrations within the Albury Wodonga Military Area. This provided an excellent opportunity for those in attendance to celebrate the proud history of the Corps through a variety of activities on a warm and sunny day on the Victorian border.

The day began with a welcoming address from the Master of Ceremonies, CAPT Maddock, before kicking into a variety of potted sports and activities. First to commence was the strength competition which saw participants compete to lift and carry increasingly heavy weights. A huge congratulation to the winners, GNR Goggins, CFN De Montille and AC Baldwin.

GNR Goggins of VTW also won the inaugural Spanner Throw, with the furthest toss being 12.10m.



VTW's winning catapult

ASEME Ops also organised a Tug of War, Robot Wars and a contemporary take on the Billy Kart Race, christened "Billy LARKs" due to the amphibious nature of the course. After a controversial and electrifying race EESW were first to cross the line.



Tug-o-War

The Tug of War was also won by EESW after a close fought battle with VTW. However, VTW had their revenge in the Pineapple Bowling competition which saw Wings compete to build a catapult to launch pineapples at targets 30 meters away. VTW bowled a perfect strike to huge cheers from the watching crowd. There was also some unplanned audience participation, as HQ's contribution, in a fitting analogy sent their pineapple directly backwards.

Robot Wars continued into its second year with another fantastic showing of ASEMEs more cerebral side. Four teams battled it out for the coveted trophy before “Thor Crawler” won the gold. It was noted that the commentary this year was exceptional.



The Billy LARK racing



The Billy LARK racing

Each event proved to be a huge success with all members coming together to cut the cake and sing a raucous rendition of Happy Birthday to our beloved Corps. Food trucks, trade stalls and local car clubs were all present to further add the festivities granting the day a carnival atmosphere. The ever reliable Team Army entertained the crowd with the soothing sounds of a turbo charged diesel engine in full roar.



Team Army revving up the crowd

CO ASEME, LTCOL Tim Soper, addressed those in attendance, where awards and promotions were presented. This was a fantastic opportunity for the recipients of these honours and awards to be recognised by the wider RAEME community. Congratulations to ACW for receiving the Champion Wing trophy.

The day was an outstanding celebration of RAEMEs 81st Birthday, allowing all that attended to experience the mateship and esprit-de-corps that makes RAEME great.



LTCOL Soper cuts the RAEME Birthday with ASEMEs youngest member



ACW celebrate Champion Wing

Townsville RAEME Birthday

North Queensland RAEME Birthday 2023

3 CER with the kind permission of LTCOL Nick Trotter CO 3 CER hosted RAEME Birthday. The day commenced with a BBQ breakfast as all RAEME members arrived ready for the day's festivities. RAEME COL COMDT QLD, COL Evans made the journey north to celebrate the day and present the awards to our worthy recipients on the day.

Corps Awards Recipients

Award

Regimental Award (Sub 2 WOCSS)
LT Peter Jennings Award (LOBC)
National ARA CFN of the Year
NQLD ARA CFN of the Year

Recipient & Unit

SGT Benjamin Alderson, CTC
LT Corne Wiid, 2 RAR
CFN Joel Gandy, 2 RAR
CFN Jayme Nicholson, 3 RAR



The following are the results for each activity:

Volleyball

1st - 102 FD WKSP (second year running)
2nd - 9 CMP from 9 FSB
3rd - 3 CER TST

Engineer Lift and Carry

1st - 3 RAR TSP
2nd - ASEME OJT Det Townsville
3rd - 3 CER TST

Spanner Throw

1st - ASEME OJT Det Townsville
2nd - 3 CER TST
3rd - 3 CSR TST

Chain of Command Relay.

1st - 1 RAR TSP
2nd - 3 CER TST
3rd - 2 CAV REGT TSS

Go Kart (Engineering, Esprit de Corps,
time trial and go to whoa)

1st - 3 CER TST
2nd - 102 FD WKSP
3rd - 4 REGT TST

It was a great day of competition, with the 3rd Combat Engineer Regiment TST taking the honours of Champion Workshop. The old adage of consistency wins was true with the TST finishing on the podium in all but one event and winning the Go-Karting event for excellence in engineering, esprit-de-corps, unit representation and driving skills.



The day finished with a great raffle draw and few casual drinks, the last prize draw was a 750mm RAEME badge donated by Mr Mick McMillan from AEP Engineering. A big thank you to WO2 Jason Ballard for organising the event.







NT RAEME Birthday

81 years on, and the Corps Birthday is still a proud day for the Crafty. On the 1st of December, 1 Combat Engineer Regiment Workshop hosted the RAEME Birthday celebrations on Robertson Barracks. Serving and ex-serving members from the Northern Territory swarmed to the event enticed by the promise of a good time with great people.

Traditional RAEME events such as Touch Football, Tug-of-War, Chain of Command Relay, Spanner Throw, and the Billy Cart Race kept the excitement of competition alive whilst there were only a few vehicles in the Show-n-Shine this year. Winners of each event contributed weighted points to a final score, resulting in the 1ST Combat Service Support Battalion claiming victory, and receiving the perpetual RAEME Birthday Trophy.

An amazing BBQ lunch was provided by a team from the Defence Assist Program for a gold coin donation. Steak and sausage burgers kept the athletes and participants fuelled until the bar opened.



Support from trade stalls, food vans, supplement stores, and of course the Sally Man, kept supporters busy throughout the day with plenty to look at and freebies on offer. The day wound up with the raffle being drawn, of which the 13 businesses who supported the day made considerable contributions.

At the conclusion of events LTCOL Huggins (CO 1 CSSB) addressed the audience with a sincere acknowledgment of the hard work that RAEME has done this year. This was followed by the presentation of the NT

Regional Craftsman of the year; which CFN Nicholas Wellington from 1 CSSB was awarded. Congratulations CFN Wellington.





We celebrated the day with the cutting of the birthday cake which was donated by the NT RAEME Association.

The 81st NT RAEME Birthday wouldn't have been possible without the support from the RAEME Corps fund, NT RAEME Association, and the Defence Assist Program, along with all of the individuals who assisted with planning and liaison. These people contributed to a great event allowing RAEME members and to enjoy a terrific 81st Birthday.



South Australian RAEME Birthday

WO2 Maitland

7 RAR hosted the 81st RAEME Birthday celebrations for South Australian at RAAF Base Edinburgh this year. It was a sunny day and fun was had all around. After the initial inter-unit sports, seeing a draw between 7 RAR and 9 CSSB, the day kicked into action with the usual RAEME Birthday shenanigans. There was a good trade stall turnout with teams from Milwaukee, Total tools, ARB, Blackwoods and many more. The free merchandise was flowing off the shelves for a good chunk of the day.

The spanner throw was taken with ease by 16 REGT. The real upset was 9 CSSB rolling 7 RAR in the tug of war and ultimately cleaning up, taking away Champion Unit for 2023 SA RAEME Birthday. 9 CSSB walked away with wins in volleyball, Tug of war, and the go-karting.



As only three of the local units decided to build carts and enter the comp, the race was over quite quickly. All-in-all the carts were quite well matched with half a second between 9 CSSB and 7 RAR. Almost a minute and a half later 1 ARMD crossed the line taking 3rd place.

In honour of the hosting unit, lunch was a pig on the spit that started cooking at 0430. By lunchtime the meat was falling off the bone. The carcass was torn down quickly and devoured by the hungry hoard in no time at all.

Once all the activities had wound up, these year's award recipients were announced. LCPL Connor Bilby – 1st Armoured Regiment, was awarded the SA Regional Craftsman of the Year winner. CFN Blake Magatelli – 16 Regt, RAA, was awarded the RAEME Association SA Soldier of the Year award. CPL Jordan Van Den Berg – Joint Electronic Warfare Operational Support Unit, was awarded the Brigadier H.L.C Martins OBE Memorial Encouragement Award for 2023.

RAEME Birthday celebrations 2024 look to be bigger and better as 1st ARMD REGT have volunteered to run what is looking like the final RAEME birthday for some units in the state.



Cairns RAEME Birthday



Veterans and members of RAEME's marine engineers gathered in Cairns, to commemorate the Corps 81st birthday with a heartfelt reunion. Against the backdrop of the Cairns harbour, everyone enjoyed reuniting and sharing some good old appy warries. The event honoured the legacy of the RAEME and recognised its unwavering dedication to supporting the Australian Defence Force.

As is tradition the youngest enlisted member WO1 Mathew Fergusson had the honour of cutting the birthday cake. Amidst laughter and reminiscence, the celebration not only marked a significant milestone but also reaffirmed the enduring bond among those who served under the RAEME banner.



Troy Cramp 42nd class
Rebecca Cramp
Geoff and Emma Clulow
Shane and Michelle Bradley
Daniel Towne
Mathew Fergusson
Shaun Murray
Lorry Parrish
Jason Peterson
Dale Lorenz
Karl Wilkins



ASSOCIATIONS

ACT RAEME Association

RAEME – Caught in the ACT

As we embark on a reflective journey through the noteworthy events and accomplishments that have defined the ACT RAEME Association in 2023, our first and foremost expression of gratitude goes to the three exceptional former committee members who have steered the ship with unwavering dedication over the last 20-25 years – Larry Foley, Lyell Wedd and Laurie McDonald.



Larry had a long career in the Army with service in multiple units and roles from 1959 to 1994. It was clear from the start as a National Serviceman that Larry was headed on to big things as his first promotion to CPL came after only one week in the Army. He did however have to do a 3-day course before sewing the rank on but his potential was clear. On transferring to the Citizen's Military Force 3 months later, Larry was employed as an automotive fitter in Bulimba where he was identified as suitable for commissioning. In 1961, Larry graduated from the Officer Cadet School as a 2LT and was unleashed on the world as a junior RAEME Officer. He laments that even though he had command over a workshop platoon, he was in fact the lowest paid member of that platoon!

Operationally, Larry served as the 2IC of 102 Field Wksp in Vietnam. On return to Australia, Larry moved into different roles with armoured vehicles, including vehicle trials. This led him to being posted as SO1 Leopard which gave him the experience needed for the posting he recalls as his most memorable; CO of 4 Base Wksp Battalion, where he became the King of the mighty 4B-Bar.



In 1994, Larry retired as our Head of Corps. He was subsequently appointed as the Colonel Commandant of ACT and NSW and then he was appointed as the Representative Colonel Commandant, a role he filled with distinction until 2003.

As one of the first Presidents of the ACT RAEME Association, Larry looks back with great fondness to the comradery within the Association and the broader Corps in general. His influence in building the Association cannot be overstated.

In the early association, Larry was supported by Lyell Wedd. Enlisting in 1969, Lyell started as a Production Clerk in ACT Workshop as well as many other units as his career progressed. Whilst serving as a WO1 in the Director General EME's (DGEME) office, Lyell was instrumental



in the development of the earliest computer systems used in the Corps, including packages such as the Electrical and Mechanical Engineering Data on Equipment Repair (EMEDATER), Electrical and Mechanical Engineering Microprocessor-based application (EMEMic) and Machine Assisted Workshop Documentation (MAWD). Lyell retired in 1990 although his service continued through Public Service placements in several strategic communications roles including back within DGEME for another few years.



In its earliest days, the AEME/RAEME Association was managed by a group of 8-10 serving members within DGEME's office. At that time, Lyell was on the editorial team for The RAEME Craftsman magazine. When DGEME relocated to Bandiana in the early 90s, the Association's management was passed to the few staff members who were remaining in Canberra, including Lyell. It quickly became apparent to the team that with reduced staffing, the operating model of the Association had to change. This saw the introduction of the system that remains in place today, that is, the membership is formed from all serving or retired RAEME members who live in the ACT region and as all activities are self-funded, there are no

subscription fees of any kind. The model of monthly gatherings that Lyell introduced also remains in place today.

Whilst Lyell was instrumental in the establishment of the Association, he was ably assisted by WO1 Mario Gerhard and WO2 Trevor Bonney. As both Mario and Trevor retired from active roles within the Association shortly after, the committee was boosted by the recruitment of the then recently-retired WO1 Laurie McDonald.



Laurie filled many roles across the Army since enlisting in 1962. He saw operational service in Vietnam before working through the ranks in Base Workshops, Engineer Squadrons, Reserve units, Army HQ, training establishments, Transport Platoons, Watercraft Workshops, HQ EME Group and more. Whilst in these various roles, Laurie was known as "Mr Fix-it" due to his ability to resolve any problem his seniors had identified as needing specialist attention. This was especially the case for any matter that required detailed analysis of accounting or procedural elements. Like Lyell, Laurie also formed part of the editorial team for The RAEME Craftsman magazine. All-in-all, Laurie had remarkable exposure to a large part of the Army and

RAEME's part within it over his 23 years of service. This experience-base was warmly welcomed by the Association.



Aside from notable achievements in Laurie's military career and subsequently in his numerous civilian roles, Laurie has provided invaluable support to the Association. He was a sounding board for the Committee who ensured all decisions were reviewed by him before they were promulgated. The Committee was well-aware that if Laurie didn't support a decision, there was probably something wrong with it, hence it wasn't promulgated until it was properly reviewed. Laurie was also the first to raise his hand for any job and was largely considered the stalwart that other members could rely on without question. To this day, Laurie is regularly invited to attend ANZAC Day and

Remembrance Day services at ACT Public Schools. He is forever freely giving his time to support others which is testament to the man he is.

Larry, Lyell and Laurie's invaluable contributions to and stewardship of the Association have paved the way for the flourishing successes we celebrate today and we thank them for that.

Over the last 12 months, the current committee has been led by Andy Adams with continuing support from Ian Cook. As established by the previous committee, Andy and Ian have prioritized the cultivation of camaraderie and unity among its members throughout the year. Monthly social events continue to strengthen the bonds that have made our association a close-knit and supportive community.

On the first Friday of every second month, the Association members gather for a mixed lunch. On alternate months, a Spanner Club is convened for all members. This is supported by informal drinks on the last Tuesday of every month. All events see a good mix of both serving and retired members. The Association is also fortunate to have Head of Corps as a local member, hence his attendance at occasional events is warmly welcomed as an opportunity for both serving and retired members to connect with current happenings in the Corps.



The first key event for 2023 was ANZAC Day. The Association proudly marched behind the Association Banner as part of the National Veteran's March at the Australian War Memorial. Pre-COVID, the Association would typically be supported by an approximately 50-member strong contingent however restrictions imposed by COVID and the Australian War Memorial's reconstruction work had seen these numbers drop significantly. We are however fortunate in that construction work at the War Memorial is expected to be complete before ANZAC Day 2024 so we look forward to seeing the Association reform a large contingent.



Following this year's Veteran's March, the Association was supported by the kind staff at Olim's Hotel, being the closest hotel to the War Memorial, where we were allocated a room and were provided with snacks. This support provided an awesome venue for the membership to share some stories over a drink. It also gave us the opportunity to fly the tricolours in a very popular establishment amongst military members after the march, which helped to draw in several visiting RAEME members, both serving and retired.

On 18 August this year, being the 50th anniversary of the withdrawal of troops from Vietnam and also the anniversary of the Battle of Long Tan, a large memorial service was held at the National Vietnam Memorial on ANZAC Parade, close to the War Memorial. This was attended by several thousand veterans from the conflict and their supporters. All gathered to thank the some-60,000 servicemen and women who served in Vietnam and to also remember the 523 who gave their lives there. During the poignant service, speakers recounted stories of service and dedication at



all levels. The sense of achievement many veterans expressed was well-warranted as they improved the quality of life of countless Vietnamese people whilst also forming strong bonds with their mates, bonds which remain firm to this day. Some also spoke of the struggles many veterans found on return to a what was, in effect, a relatively immature nation; one that struggled to separate Australia's involvement in an unpopular war from those who served in it. Thankfully, our Nation is a little more mature now in our approach to deployments and our provision of services to returning service personnel. This would not have been possible had it not been for the continued dedication of Vietnam veterans who fought for services such as Open Arms.

The association marked several other key dates on the military calendar with solemnity and pride, including Remembrance Day and the presentation of Corps lanyards to the junior officers graduating from RMC into RAEME.



The Association held an end-of-year dinner but being ahead of the pack, we held this in early November. It was a great opportunity for members to share a meal and to gain the wisdom of senior members, including our Representative Colonel Commandant, BRIG Smeaton, and the visiting President of the NSW Association, Richard Boyce.



With some serving members of our Association working in key areas such as Army Headquarters, the Robotic and Autonomous Systems Implementation & Coordination Office, Makerspace, Landworthiness Branch, various minor and major equipment acquisition projects, career management and so many more critical units, we were also well-placed to learn more from them about the development within RAEME and in broader Army in general. It was also great to hear about some of the exciting new equipment that is entering service soon.

Celebrating the birthday of our esteemed Corps was a joyous occasion. The camaraderie and shared pride were palpable, with an expanding number of members joining in the festivities, highlighting the enduring spirit of the RAEME family. We were joined by several of the 22 RMC graduands who by the time of publication will be commencing their careers as RAEME LTs; the youngest of whom, SCDT Rhys Brown, joined President Andy Adams to cut the Corps' birthday cake. RAEME Birthday afforded us the opportunity to learn more about what is coming and based



on the high standards on display with our newest officers, our Corps is in good hands.

Communication in the ACT largely involves monthly newsletters, called RAEME in ACTion. These newsletters include a summary of upcoming Association gatherings for the next 3 months as well as an overview of all other upcoming Association gatherings around the country. We find this helpful for those members who regularly travel interstate (a very common occurrence for Canberra-based desk officers). We also include a summary of key activities at the War Memorial or other veteran-centric agencies in the area.

As we reflect on the past year, we again acknowledge the indispensable contributions of Larry, Lyell, and Laurie, who have played a pivotal role in shaping the successes we celebrate today. Their dedication has set a high standard, and we are committed to building

upon their legacy as we march forward into the future. We also acknowledge the support of our members, both serving and retired, as they embrace the comradery within the Association and continue to support our events. The growing attendance of both serving and retired members at all Association events held this year was a testament to the unity and shared commitment between our Corps' members.

In conclusion, we extend our gratitude to the RAEME Craftsman Magazine for providing us with this platform to share our journey. The ACT RAEME Association remains steadfast in its commitment to upholding the values of RAEME, fostering professional development, and serving our community with pride.

RAEME in ACTion!

RAEME Association of Tasmania (RATS)



RATs on Parade

Can you believe it! Another 12 months have come and gone! Harry is now a sprightly 81 years old and like many associations the RAEME Association of Tasmania (RATs) celebrated our Corps Birthday and combined it with our AGM. Whilst numbers were slightly down, I have been reliably informed that those who attended had a great time. From the photos it was pleasing to see a few faces that haven't been there in recent times, welcome back. As for the AGM, I am pleased to say that the current committee stood for re-election and

were reappointed, together with Wayne Cubitt coming back to committee in the role of Apprentice Representative, well done Bruv. The committee for 2023 is:

TAS

President	Mark Wilson	Webmaster	Glen Hay
Secretary	Russell Clark	Apprentice Representative	Wayne Cubitt
Treasurer	Shane Rollins	6LSC Rep	Amy Britten
Comms/Newsletter	Russell Clark	JLU (Vic) - H	Peter Barrett
Merchandise	Mick Moran	Historian	John Lennox



2023 Cake

The last 12 months have been a quieter period for the association, in general with Australia coming out of the Covid lockdown period, it appears that many of our members have taken the opportunity to travel to see family, friends or just relax. At one committee meeting this year we had representatives in four different states, I am extremely grateful for the technology that is now at our hands. I'm hopeful that we'll be a little busier over the coming 12 months, with quarterly catch ups at a venue to be decided on the cards.



Cake cutting – LCPL Barnaby Martin Johnson and Mr Brain Parker

I would like to express my sincere gratitude to the following people for their contribution to our association and the Corps. Firstly a local thanks to CPL soon to SGT Niall Wooley; Niall and his family have been stalwarts in running the bar on the behalf of 2FSB when they have used our facilities for functions. He has engaged with our part time brethren, gaining interest and attendance at our functions. A huge thankyou from all the committee.

Secondly, the RATs want to express their thanks to the Corps RSM WO1 Jonathon



Sgt Niall Woolley and COL COMDT - TAS COL Andrew Herbert

Tynan for his monthly updates; they have been of great value to maintain the continuity with our current serving brethren and the topics that he has written about have created great discussion in Committee meetings and the key aspects passed onto members.

Finally, a huge thank you must go to Ross Grant Chair of the RAEME National Network. Ross your dedication to the Corps has continued even though you no longer wear the uniform, it has been a privilege to represent the State of Tasmania under your guidance, so thank you for all of your efforts.

Well that's all from the RATs for 2023, we hope that you all have a very Merry Christmas and a Happy New Year. Those serving and being posted have safe travels and that their uplifts and removal happen without heartache. For those of you who may be discharging or being posted to Tasmania, please get in Contact with your Association Reps, you will be welcomed with open arms.

RAEME Association of WA

2024 was a busy year for the RAEME Association in WA.

It started with a couple of well-deserved promotions from the ranks of 113

Shaun Fenn who started as a 2LT in the Workshop in 2006 and OC in 2015 and 2018 was promoted to Lieutenant Colonel and took over command of 13 CSSB. Brad Clarke, who started as a greaser in the workshop in the 90s and eventually made full track. Brad has done even better in his career in the RAAF, as he is now Air Commodore Clarke, CSC OAM.



Craftsman memorial plaques at Kings Park

The formal part of the year started with our annual RAEME Vigil on ANZAC eve. This is held at the Sandakan memorial in Kings Park and is an exclusively "RAEME" event commemorating the foundation members of the Corps who were captured at Singapore and perished on Sandakan. The four Craftsmen and one Corporal are the only members of the Corps commemorated with plaques at Kings Park and we consider it is our duty to remember them. Well over 30 of us attended with Rob Reeves piping and Kim Kuchel officiating as the

padre. In an earlier life, Kim was a diesel mechanic, so he is truly part of our family. Each member had his service record read out; his plaque decorated with a sprig of rosemary, was given a tot of rum and was marked "present" on the roll of 113 on ANZAC Day.

The March was well attended and the celebrations later at what has become our standard stomping ground, the IBIS, even more so, with numbers growing every year. Spanners always come through when the occasion demands.



Craftsman memorial plaques at Kings Park

A number of other get-togethers were arranged during the year. Vietnam Day of course, where our RAEME Vietnam Vets did us proud, with our Banner in pride of place (as well it should be) for the Parade. Ranks are thinning but they still march tall and proud. A reunion was held for all of us who had been posted to 10th Light Horse (XLH) TST (which, as we are talking WAADF, means basically everyone). About 30 of us showing up and some of the stories even had a basis in fact! I hope that now they are back to being a Regiment, the TST may be stood up again.

This was followed up by a weekend at the Veteran Transition Centre in a delightful bushland setting in Jarrahdale, south of Perth. We supported the great work the centre does supporting those vets, which are having trouble getting back into society.

A number of us did the three hour trip to the Nungarin Military museum, which is in the old 3 AS Corps Workshop building to help out the volunteers restoring their various bits of kit. Grants, Whites, Studebakers, Blitzes and much more. The lads even managed to get one of the Ferrets



Ferret and Grant at the Nungarin Military Museum



REME's Birth Certificate

Government House and the Swan River and having the floor and balcony above the Drop shorts celebrating St Barbara's Day was an added bonus. Mention must be given to Dale Whelan who thought "Cocktail Party" rather than "RAEME Birthday" – nice tux



Mark Vincent, Graham Coles and Greg Clark with their Certificates of Service at the RAEME Birthday Cocktail Party

arced up. It will very likely be a spot for a full RAEME Weekend next year (and give everyone a chance to use the AF side of their socket and spanner sets)

The unveiling of a memorial to LTCOL Vivian Strathan (nee Bulwinkel) by the Australian War Memorial in August, brought back some very pleasant memories of Viv and her husband COL Frank Strathan. They were stalwarts of the WA RAEME Officer's Association for many years.

In addition, a couple of our more senior Spanners did a tour around all the great UK Military museums and of course visited the new REME Museum at Lyneham in Wiltshire. Lots of very interesting exhibits, bits, and pieces, if only we could have understood what they were saying and they had decent coffee in the UK. One thing worth a chuckle is a formal official birth certificate of the Corps.

The year ended with a RAEME Birthday Cocktail Party at ANZAC House in Perth in lieu of the usual pub, get together. It was a great night and we hit capacity for the venue (3 hrs of free grog and food tends to bring members out). The location was superb overlooking

As the Senior Spanner, 4th Intake Apprentice George (Pud) Armstrong, ASM of 102 Fd Wksp at Vung Tau did the Corps Toast and retiring members Mark Vincent, Graham Coles and Greg Clark were presented with their Certificates of Service from HOC. A number kicked on but that is a tale not to be put into print. To end the year, we had the promotion of long serving RAEME officer Amanda Williamson to Brigadier to take over command of 13 Bde and Perry Beor returned to 113 as OC for the fourth time – hopefully this time he will get it right.

COL (RTD) Lindsay George HORNER (1929-2023)

Lindsay was born on the 30 Jan 1929 at Warrnambool, Victoria.



Lindsay joined the RAAF and after successfully graduating as a pilot on No 3 Flying Course and later flew Mustangs out of Canberra.

Sadly, or perhaps otherwise, fate intervened to stymie Lindsay's flying career. Retired MAJGEN Doug Powell, a friend and contemporary of Lindsay's, explained that as Lindsay was about to go to the Korean War, he had a motor bike accident, which amongst other things, damaged an eye and other parts of his body. Thus he didn't go to Korea and took the direct entry path into RAEME.

Lindsay Horner's official service records was a little different and is summarised below:

Lindsay served in several postings in Australia and overseas including UK, PNG and Vietnam.

Lindsay played a prominent part in the establishment of fledgling Army aviation capability, when he was posted as the ADEME (Air) in the EME Directorate at Albert Park Barracks. In May-July 1971, in preparation for further employment in the RAEME aviation capability, he completed the following course and visits:

- Attended a Senior REME Officers' Aircraft Appreciation Course at Arborfield in UK.
- Studied REME aircraft repair and maintenance procedures at the Army Aviation Centre, Middle Wallop, UK.
- Visited Fort Belvoir Virginia, USA (large civilian-manned maintenance facility).
- Visited Hunter Army Airfield, Savannah Ga USA (large military-manned maintenance facility).
- Attended Bell 206a (Kiowa) Maintenance and Overhaul Course, Fort Worth Texas, USA.
- Visited US Army Aeronautical Maintenance Centre, Corpus Christi, Texas, USA.
- Visited US Army Aviation School, Fort Rucker, Ala USA.
- Visited US Army Transportation School, Fort Eustis, Virginia, USA.
- Attended Allison 250-C18 Operation and Maintenance Course, Indianapolis, Indiana, USA.

Lindsay recalled a very important task he undertook with LTCOL Don Wylie while posted to the ADEME (A) position, accompanying the RAAF Operational Command Annual Inspection Team when they visited Army Air elements in PNG, the teams' job was to ensure the level of support being provided to Army aviation units by new RAEME aviation units was of the highest quality – they were rarely found wanting.

In January 1973, Lindsay took over from MAJ Bob Draper as CO of 5 Base Wksp Bn at RAAF Base Amberley. He was entrusted with the move of the workshops to Oakey in December 1973, but spent little time there before he was promoted to the rank of Colonel and posted to Victoria Barracks, Brisbane, as the Commander of 1 EME Group.

Lindsay's next appointment was in HQ Log Command as the COLENG. It was in this appointment; he was tasked to raise the fledgling Maintenance Engineering Agency and became the first Controller or CONMEA.

On his retirement he joined the Royal Doctor Flying Service (RFDS), Victoria, in 1980. In retirement, Lindsay enjoyed the company of, and great times with, his many military friends including Ken Gibson, Norm Trigg, sometimes Doug Powell or Don Wylie, whom he met for lunch in Mornington once or twice a year.

Lindsay passed away in Aug 23 following many health complications at the age of 94. He was a dearly loved Husband of Viv, pre-deceased him, and whom he adored.



Ross Grant recalls Lindsay as a quietly confident officer, whose contribution to the RAEME aviation capability has not been fully appreciated and in some case, forgotten. I first met him at the AAS, Balcombe, as much as a 15 year, old can “meet” a somewhat austere looking Major, on several occasions. Later, when I was filling in time during my holiday breaks as a student at RMIT, I again “worked” for him, and I believe he was responsible for my attendance on the Officers Long Aeronautical Engineering Course Middle Wallop in 1971-72. On return from the UK, he was briefly my CO at 5 Base Wksp Bn. In 1979, I worked in ENG DIV, HQ Log Comd, for LTCOL Bob Millar, when Lindsay was the COLENG and eventually CONMEA.

My last formal exposure was when he worked in the RFDS and he interviewed me for a job, which I didn't get, with Lindsay gently telling me others had far more commercial experience than me!



We maintained a close connect right to the end – in the week before he died, he rang to ask after BRIG Bert Barker, who is approaching his 102nd Birthday, and to let me know that despite Doug Powell's' difficult situation post a sever stroke, he was bearing up and really appreciated the calls he'd been receiving. He also wanted to tell me how mobile he was despite his health concerns and the adventures he undertook in his relatively new mobility scooter. With that scooter he remained relatively mobile right up to his death.

Robert ‘Bob’ Service

The story that follows has two parts. The first part was related by WO1 (Rtd) R.C. “Bob” Thompson, deceased, of a Craftsman who accidentally played a small but vital part at the Battle of Long Tan in August 1966; the second, is a tribute by MAJ (Rtd) Ian Mackenzie to that Craftsman, and close friend, who passed away on 23 Sep 23. The following story has been edited by BRIG (Rtd) Ross Grant as at 5 Oct 23.

Firstly, Bob’s story: Forty years ago I heard a story about a **RAEME soldier being at the Battle of Long Tan**. I immediately dismissed it as rumour or a tall tale. I heard it again in 1999, when I was applying to have a pilot, Flt Lt Cliff Dohle’s MID upgraded to a DSM. Flt Lt Cliff Dohle piloted the first helicopter that dropped ammunition to ‘D’ Company 6RAR soldiers engaged in a battle for their lives at Long Tan. I was so focused on getting Cliff Dohle his DSM, which he eventually received, I forgot about the other interesting story.

Much later, I again heard the story of a RAEME soldier at the Battle of Long Tan. This time I thought I would check it out thoroughly, as the story had surfaced too many times not to have some validity. I knew the soldier wasn’t with the ground troops because I had researched 1APC Squadron, 3 Troop and ‘D’ company 6RAR and found nothing.

Two of the people on helicopter A2-1020 flown by Flt Lt Francis (Frank) Riley were RSM WO1 George Chin and Major Owen O’Brien from 6 RAR. Their exploits that day have been well documented in books such as *The Battle of Long Tan* by Lex McAulay, and many others. But nobody knew who was on another aircraft, A2-1022, flown by Flt Lt Cliff Dohle. These people helped load the second chopper as well as wrap the ammo in blankets. They “stayed” on board to help push out the ammo when the aircraft hovered over ‘D’ company during the battle. This aircraft carried most of the ammunition and was first over ‘D’ company to drop the ammunition.

After two years of research, I eventually discovered who was on helicopter A2-1022. One of the PAX was 1200605 CFN Robert Service, Armourer, RAEME attached to 6RAR. Most people have never heard of CFN Service, but after his Vietnam service, he re-trained and became an Airframe Fitter, who continued to serve for another six years at Oakey and Lae, PNG. He left the Army to work for Bell Helicopters in Brisbane, Qld at the end of his military service.



CFN Robert Service

I asked Robert Service, when retired, to tell me his story. This is his response:

“On the afternoon of the 18th of August 1966, I was enjoying a beer with the staff of Admin Company, 6 RAR. A Sergeant ran up to us and ordered the group to go over to the ‘Q’ store, collect ammunition boxes and load them into the two helicopters that were sitting on our pad. We quickly did as we were told in a tropical monsoonal downpour. As we loaded the two helicopters, I noticed I was carrying the last box of ammo to be carried. As I commenced loading, I saw the ‘Q’ store storeman, Cpl McCutchen, arrive with a bundle of blankets and he jumped on board with them. I could see he needed my help, so I climbed aboard the helicopter and helped him wrap the ammo boxes.

While we were busy doing this, the pilot took off. The noise of the tropical downpour combined with the engine and rotors, plus the adrenalin rush, blocked out any communications with the crew and CPL McCutchen. After a short period of time, we arrived at our destination; we were at

tree top height over the battle. Through the rain, we could see the trees. I helped push the blanket wrapped ammo boxes out. I also noticed some more ammo wrapped in sand bags on the edge of the floor of the helicopter. The aircraft rolled on its side and the load, helped by the door gunner and us, left the aircraft and fell to the ground. After the ammo drop, we returned to Nui Dat.

Our helicopter was A2-1022; it was piloted by Flt Lt Cliff Dohle. I knew we were sitting ducks; we were at tree top about 20/30 feet above the ground, and you could see the rubber trees through the pouring rain. The helicopter had all its navigation lights on as well as the flashing strobe light on the top of the aircraft."



L to R: Lisa Armstrong; daughter, Joan Dohle, widow, Helen Smith; son, daughter, Jane 10, David 6, grandchildren, Bev and Robert Service.

Left. Aircraft A2-1022, piloted by FLTLT Cliff Dohle and FLTLT Bruce Lane, door gunners, CPL Bill Harrington, LAC Brian Hill, ammo unloaders CFN Robert Service and CPL William McCutchen, is now restored as a Memorial and sits on a stand at the front of Caloundra Qld RSL.

Ian Mackenzie continues the story. Robert Service was one on my closet friends – we'd served together in 183 (Indep) Recce Flt, PNG. He passed away on 23 Sep 23 aged 81 and his funeral was held at George Hartnett Funerals Wynnum QLD.

"Bob's Funeral was attended by at least 250 people, with a further 55 written apologies which were forwarded to me by MAJ (Rtd) David Melandri, who also served in 183 (Indep) Recce Flt. I passed all the apologies to Bob's wife, Bev, and her children. I had been asked by Bev to be a pall bearer – I was honoured to carry out this task and also put together some words on Bob's life as I knew it.

"Bob and my family have been friends since we served as airframe corporals in 183 (Indep) Recce Flt in Lae 1968.-70. Bob had two sons and a Daughter. He was born in Colac Victoria. The family moved to Bundaberg Qld, where Bob attended Primary and High School. "He completed his schooling at Brisbane Grammar and later Bob undertook an apprenticeship as a Fitter and Turner at a Bundaberg Sugar Mill. During this time, he became a lifesaver and enlisted in the Army Reserve, serving in an Infantry unit in Bundaberg, until he Corps enlisted into RAEME.

"On discharge from the Regular Army, Bob enlisted in the Emergency Reserve, and as I best recall, he reported to Oakey WKSP Bn at least three times in that capacity. During his ARA and ARES service, he attained civilian aircraft maintenance accreditation and was employed by Bell Helicopter



in Brisbane. Subsequently, he was employed by the Tennyson Powerhouse until it shut down, later working at the Holy Spirit Hospital Brisbane. Finally, he worked at the Queensland Performing Arts Centre. Bob's high level of employability was achieved by acquiring and routinely updating qualifications and the necessary skills and knowledge to perform in each new position – he valued lifelong learning as much as he valued sharing his knowledge and skills with the next generation.

"He was also heavily involved in community organisations, including 20 yrs as a leader in the Scouting Movement, the charity Sailability (for the disabled sailors), a local Men's shed, the Brisbane Sunshine Wanderers Motorhome Club and the RSL. He was also a member of the Masonic Lodge and a Justice of the Peace.

"He had broad knowledge, a hugely generous spirit, always a ready helper in many situations and the provider of much practical advice was available to anyone who sought it. He was much respected for his efforts over a long time, his humility and concern for others. Bob's surname "Service" epitomised his life – one of long-standing service to the community. As an aside, he was also a remarkable painter, and I have a beautiful painting of a wonderful family pet that he gave to my family as a gift."

Vale' 2023

January 2023

Powell, John
Phipps, Ken
Smith, Alan

February

Engleby, Geoff
Meacle, Laurence
Menzies, 'Max' Maxwell
Pilling, Alan

March

Wolters, 'Laurie' Lawrence
Wilkinson, 'Rusty' Laurance

April

Ross, 'JR' James
Miller, 'Dusty' Paul
Amos, David

May

Askey-Dorin 'Phil' Phillip
Cybulski, George
Ward, 'Wombles' John

June

Angelopoulos, 'Sid' Sitros
Finney, 'Dick' Richard
Phillips, 'Flip' Gregory
Groffen, Dave
Cotter, Paul
Hutchinson, George

July

Cislowski, 'Harry' Harold
Davis, 'Mick' Michael
McAullife 'Macca' Mark

August

Tonkin, Colin
Hutchinson, David
Hoffensetz, Alex
Gough, 'Bert' Albert
Horner, Lindsay
Ullock, 'Slim' Robert

September

Service, 'Bob' Robert
Fuller, David
Goode, John

October

Hickox, Bill
Tremain, Peter
Cullen, 'Dave' David
Hinks, Ivan
Goodwin, John
Meiklejohn, Alan

November

Wallace, 'Bill' William

December

Connor, Clive
Pullen, Russell
Swaysand, 'Squizzy' Stephen
Jenkins, 'Jenko' Kenneth

'Arte et Marte'

Your Corps thanks you for your service.

'Rest in Peace'

Editor's Note: Our apologies for any inaccuracies or omissions. Vale notices are compiled based on emails sent to the RAEME HOC Cell, entries on the RAEME Association newsletters/websites, and posts to the 'RAEME' and 'RAEME Mates' Facebook groups. As such the details supplied vary greatly.

