



## Royal Australian Electrical and Mechanical Engineers



 **RAEME | CRAFTSMAN**

Edition 73 2022

*Serving the Nation*

## EDITORIAL BOARD

### Editor:

WO1 Dave Clarke

### Email:

david.clarke15@defence.gov.au

### For Next Issue

*Articles should be sent to:*

raemehoccell@defence.gov.au

The Editor

The RAEME Craftsman

HOC Cell, ALTC

Bandiana MILPO, 3694

### Deadline

1 October 2023

Please note: Photos should be in colour, if possible, with captions included. Images should be ideally at least 300dpi, photos should be high resolution and low compression and saved as a JPG or PNG. Save your text in Microsoft Word. Email or send files and photos and we'll take it from there.

### Disclaimer

The views expressed in this magazine are the personal views of the authors, and unless otherwise stated do not in any way reflect RAEME policy.

### Artwork

Corporate Graphics Canberra



Welcome to the 2022 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.

### © Commonwealth of Australia 2022

This work is copyright. Apart from any fair dealing for the purpose of study, research, criticism or review (as permitted under the Copyright Act 1968), and with standard source credit included, no part may be reproduced by any process without written permission.

Web: [www.army.gov.au/](http://www.army.gov.au/)

# Contents

|   |           |
|---|-----------|
| <b>HEADS OF CORPS.....</b>  | <b>3</b>  |
| Message from Head of Corps – RAEME .....                            | 3         |
| Message from Deputy Head of Corps – Ground .....                    | 4         |
| Message from Deputy Head of Corps – Air .....                       | 7         |
| Message from Corps RSM .....  | 8         |
| Master Artificer – ECN 146.....                                     | 10        |
| Master Artificer – ECN 226.....                                     | 12        |
| Master Artificer – ECN 229.....                                     | 13        |
| Master Artificer – ECN 235.....                                     | 14        |
| Master Artificer – ECN 411.....                                     | 16        |
| Master Artificer – ECN 412.....                                     | 17        |
| Master Artificer – ECN 418.....                                     | 18        |
| Master Artificer – ECN 421.....                                     | 23        |
| Message from SO2 Corps .....  | 24        |
| Message from the Editor.....  | 25        |
| <b>ARTICLES .....</b>   | <b>27</b> |
| The Technical Workforce Review.....                                 | 27        |
| Training for the Future .....                                       | 37        |
| ERP and SAP .....   | 40        |
| Printing the Future – Advanced Manufacturing in Army .....          | 42        |
| Hydrographic Systems Program Office – Army Marine .....             | 44        |
| Queen Elizabeth II.....   | 48        |
| The 17 WO1 Recovery Mechanics.....                                  | 49        |
| Recovery Mechanic Memorial .....                                    | 59        |
| ASEME Robot Wars .....  | 61        |
| ASEME – Murray River Police District Kids Christmas Appeal.....     | 63        |
| ASEME – Melbourne Marathon 2022.....                                | 64        |
| <b>OPERATIONS.....</b>  | <b>67</b> |
| United Nations Truce Supervision Organisation (UNTSO) - Syria ..... | 67        |
| ASEME OP Flood Assist 2022-2.....                                   | 68        |
| Joint Logistics Unit (South Queensland) .....                       | 73        |
| <b>UNIT JOTTINGS.....</b>   | <b>75</b> |
| Rotary-wing Aircraft Maintenance School (RAMS).....                 | 75        |

|  |     |
|--|-----|
| 1st Armoured Regt .....                            | 76  |
| 10 Force Support Battalion .....                   | 79  |
| 101 Field Workshop Company .....                   | 82  |
| 102 Field Workshop Company.....                    | 86  |
| 3 Brigade Warfighter 2022 .....                    | 88  |
| 113 Field Workshop Company.....                    | 92  |
| 2nd Cavalry Regiment .....                         | 95  |
| 3rd Combat Engineer Regiment .....                 | 98  |
| 3rd Combat Signal Regiment Workshops .....         | 102 |
| 9th Force Support Battalion - TST .....            | 104 |
| <b>AWARDS</b> .....                                | 108 |
| 2022 Craftsman of the Year (COTY) Recipients ..... | 108 |
| 2022 Corps Awards.....                             | 109 |
| RAEME Birthday .....                               | 110 |
| Northern Territory RAEME Birthday .....            | 114 |
| Farewell .....                                     | 115 |
| RAEME Association of Tasmania (RATS) .....         | 116 |
| Straight from the Horse's Mouth .....              | 118 |
| <b>Vale</b> .....                                  | 119 |
| Vale' 2021/22 .....                                | 119 |

# HEADS OF CORPS

---



## Message from Head of Corps – RAEME

### Brigadier Ben Slaughter – In coming

What a time to be a member of the Royal Australian Electrical and Mechanical Engineers! Our world is rapidly changing to one that is dependent on technology as part of every aspect of our lives. Army and Defence are no different. RAEME can lead the way and guide our Army in Motion to be technically enabled; ready now with fit equipment and future ready to embrace emerging technologies to succeed in contested environments. Now, more than ever, Army needs our skills, technical mastery, innovation, engineering mind-set, fast fixes and pragmatic can do

attitude. RAEME is vital for Army and Defence's future success. Saying that, there is much to do.

It is an incredible honour to have been appointed Head of Corps the RAEME. I must thank my predecessor, Brigadier James Allen and his team who did a terrific job during particularly difficult period. The new HOC team of LTCOL Rick Watling DHOC-Air, LTCOL Tim Soper DHOC-Land and WO1 Jon Tynan Corps RSM have got off to a flying start. There are a number of initiatives that they will be seeking your input on and releasing in the coming months. To guide our efforts the HOC team will be working to four lines of effort (LOE):

**RAEME LOE 1 – The Craftsman** – This LOE will get after issues that enhance the opportunities and service offering for our Craftsmen; we need to compete to attract bright young people with a technical aptitude. The HOC lead for this LOE is Corps RSM.

**RAEME LOE 2 – The RAEME Officer** – This LOE will explore opportunities for both the engineer and non-engineer officers in RAEME; we need to continue to provide Army with engineering expertise that is underpinned by a thorough understanding of Army's Combat Service Support. The HOC lead for this LOE is LTCOL Rick Watling.

**RAEME LOE 3 – RAEME Esprit de corps** – This LOE will explore opportunities to broaden our Corps engagement and interaction. The HOC lead for this LOE is LTCOL Tim Soper.

**RAEME LOE 4 – The future of RAEME** – Some excellent work has already been done to collect the thinking around RAEME's future. The intent of this LOE is to develop a consistent narrative that the Corps can use to influence and define its future role in Army.

It is your Corps and I seek your help to develop each of these LOE. The HOC team needs your input to ensure that these initiatives appropriately incorporate the broadest range of Corps perspectives.

This is an exciting time that is full of opportunity for our great Corps. We have an exceptional HOC team ably supported by MAJ Steve Howells. I am excited to be working with the HOC team and meeting as many of you as possible over the coming months.

*Arte' et Marte'*





## Message from Deputy Head of Corps – Ground

### LTCOL Troy Wilson – Out going

It is with mixed feelings I write my second and last contribution to the Craftsman Magazine as the Deputy Head of Corps (Ground) and Commanding Officer of the Army School of Electrical and Mechanical Engineering. Since my remarks in the 2021 edition, we have made some impressive progress throughout the year. With your support, CATW has continued to refine Distributed Maintenance Training, seeking ways to expand accessibility to advanced courses; evaluations for the Joint Technical Trade Training contract continue closely with our Navy peers; the

Technical Workforce Review (TWR) proposition to the DFRT was extremely well received by the DFRT members, including the detailed briefs from members of ASEME on Land Maintenance training and capabilities; the Maintenance Cell in Workforce & Training Group have attended a series of working groups developing Joint Employment Specifications for technical trades; and we all continue to work closely with AHQ and CASG in preparation for a dense period of Introduction Into Service of a range of new capabilities and platforms over the next 5 or so years.

I guess while I am still DHoC (Ground) and afforded prime real-estate in the opening pages of our magazine, I have this unique opportunity that others COs (except DHoC (Air) of course) don't get to talk about my Unit. I'll take it! I have been continuously impressed by the staff and trainees of ASEME. Of particular note, throughout 2022 we were called on to provide domestic support to those effected by the Victorian floods – we were first on the ground. We have continued our ongoing and relentless contribution to the AHQ High Profile Public Events and supporting DFR events schedule through Team Army. We have conducted numerous engagements with local community and charity organisations, including the Rutherglen RSL, Kids with Disabilities Christmas Function, and the Christmas Toy Appeal alongside the NSW Police. We hosted two VIP visits to the School being the Member for Indi, Dr Helen Haines, MP and the Minister for Defence Personnel and Minister for Veteran's Affairs, the Honourable Mr Matt Keogh, MP. We sent a small delegation to represent technical trades at the Melbourne Careers expo, seeking ways to promote technical trades in the ADF. In an incredibly condensed period of time, we developed an online PMV maintenance package for the Ukraine Army. A large portion of trainees and staff signed up to complete the Melbourne Marathon. In March we visited the MacKay Future Fit Academy and we continue to develop ways both organisations can benefit from our partnership. The ASEME Rugby League team the Bonegilla Gorillas had a hugely successful inaugural season making the Grand Final. A small group of us have dedicated numerous weeks conducting tender evaluations. Finally, and not meaning to brag, we held what was probably the best RAEME Birthday celebrations in our 80 year history. All the while, with our academic partners we continued to deliver world class training to the newest men and women of our Corps. There is a lot to be proud of and I consider myself extremely fortunate to have been afforded the privilege to command ASEME for the past two years. I thank everyone who has supported me throughout my tenure.

I am supremely confident the School and the Corps, are in good hands in 2023 with LTCOL Tim Soper and WO1 Jon Tynan taking up the reigns as CO and RSM. They will bring their own unique and extensive experiences to the roles and continue to ensure we remain ready for the future. I wish them all the best.

I would also like to make special mention of MAJ Steve Howells and SGT Rob Clarke for all the work they have done behind the scenes this year for our Corps. Thankyou gents. Also, thank you to WO1 Dave Clarke for pulling together this magazine – again, very much appreciated by everyone who enjoys the publication!

With that I'll sign off, wish you all the best, and I have no doubt I will continue to work closely with many of you as we continue to prepare ourselves for the next challenge.

***Arte et Marte and good soldiering.***



## LTCOL Tim Soper – Incumbent 2023

It is an extraordinary honour and privilege to join RAEME DHOC-Air, LTCOL Rick Watling, and Corps RSM, WO1 Jon Tynan in supporting our new HOC, BRIG Ben Slaughter, in his advocacy and leadership of our great Corps. As DHOC-Ground I want to give voice to the issues our people face and the fantastic ideas they have to overcome them. It's not lost on me that significant numbers of us are feeling a loss of vocation satisfaction and I'd offer there are some common themes which underpin this.

*"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, and time for maintenance activities, and insufficient monitoring of organisational maintenance operations by Army management."*

These were the observations in a United States Secretary of the Army report in April 1987. I raise this not to discourage or dishearten, I raise this to highlight that we must draw on the right minds to find paths through bureaucracy, work collaboratively to filter what is most important to us, and then speak with a single and resounding voice, as a Corps, to generate meaningful and enduring change. Building on the excellent work of those before us, this is what I hope your HOC Cell can do for you.





## Message from Deputy Head of Corps – Air

### LTCOL Rick Watling – Incumbent 2023

As the incoming RAEME Deputy Head of Corps – Air, and CO RAMS, I look forward to the opportunity to expand on the great work of my predecessor LTCOL Trent Groves and HoC cell in representing the Corps interests. Together with my RAEME DHoC – Ground counterpart, LTCOL Tim Soper as CO ASEME, Corps RSM and HoC we look forward to getting after things that matter to us as a Corps. 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. I welcome the new members to RAEME who have commenced with us this year as we embark on exciting opportunities with introduction on new capabilities. Please feel free to reach out to me direct if you have ideas for RAEME into the future that we can consider and I look forward to representing the Corps.

***Arte' et Marte'***



## Message from Corps RSM

### WO1 Scott Collard – Out going

2022 has been yet another busy year for the Corps.

There are many changes in the pipeline for RAEME, including the development of the Joint Technical Trade Training Contract, the implementation of the latest Defence Force Remuneration Tribunal submission for ground trades and the continuation of Distributed Maintenance Training across the country. Our people, as always, are working hard to support Army, despite facing some significant challenges.

The 80th Birthday celebrations at ASEME were truly epic. The day started with every RSM's favourite activity – a ceremonial parade, with BRIG Damien McLachlan as the Reviewing Officer, supported by the Australian Army Band – Kapooka. All officers and soldiers on parade gave maximum effort, resulting in an excellent display of drill. Special thanks go to MAJ Erin Angelini and her team of volunteers from the Army Museum Bandiana for providing a backdrop of historical vehicles for the parade, as well as a Ford LTD staff car for the Reviewing Officer. Following the parade, ASEME was fortunate enough to be able to promote 16 staff members, present a Silver Commendation, two Soldier's Medallions and a Commandant's Commendation. The culminating activity for the day was the inaugural Botwars competition, which brought together engineering officers and trainees to design, develop and manufacture fighting robots from scratch. The drama, tension and atmosphere in the ring was outstanding.

Congratulations to all the Corps Award recipients for 2022. You have all embodied the Corps spirit through your hard work and dedication.

In closing, it has been a singular honour to have been your Corps RSM. I hand over the stick to WO1 Jon Tynan, who will no doubt excel in his new role.

***Arte' et Marte'***



## WO1 Jon Tynan – Incumbent 2023

Firstly, I wish to extend my thanks to the Corps, the skills and work effort you have all sustained throughout the last three years is highly commendable. If you think about the support to Bush Fire Assist, followed by COVID19 Assist which led to Flood Assist, coupled with the requirement to complete your trade specific roles and Unit functions you have all been extremely busy and feeling the effects of fatigue. I hope you all had a chance to unwind over the Christmas break and take time to relax away from work pressures.

The Corps has a lot of changes in key roles in 2023; HOC, DHOC & RSM. The incumbent members deserve all of our thanks for the effort they placed in continuing the building of our Corps, the restructuring of trade training and how the Corps is viewed within Army.

A special thank you must go to David Clarke, without his tireless work (mostly in his own time), the Craftsman Magazine would not be around anymore. I ask you to support Dave with all request for articles and photos for future magazines.

For myself, I am extremely proud to reach my career goal of Corps RSM, especially as it is my first appointment as an RSM. For those that know me, I will continue to strive to work for the soldiers of all ranks of the Corps in order to make their time (however long they choose to stay) within the ADF enjoyable and memorable (hopefully the good times).

During my tenure the Corps will undergo numerous challenges and changes; they will include:

- Technical Workforce review – how, why, what will the Corps look like in the future
- Future Ready Training Systems – new training methodologies, new and evolving equipment

As we move forward together on this journey, I ask you all to consider the following:

- Encourage all members to be active participants in presenting ideas/concepts for the future (we all have something to offer)
- Be adaptive, agile and innovative. This will set yourselves and the Corps on a strong path into the future

You are all leaders, regardless of your rank or position. You could be called upon at any time to lead an FRT, run a section or provide advice specific to your trade. Be honest, be trustworthy and proud.

Lastly, the HOC Cell is very limited in the functions it can fulfil. The cell currently have Dave and Rob Clarke (ARES) assisting with the routine tasks that occur. If you believe you have scope to assist in any way, please contact myself: [jon.tynan@defence.gov.au](mailto:jon.tynan@defence.gov.au)

I look forward to meeting you all over the duration of my tenure as Corps RSM and working with you to keep RAEME the greatest Corps within Army.



## Master Artificer – ECN 146

### WO1 Michael Waters – Outgoing

Another challenging year has passed us by and with that you can stand proud for your efforts in maintaining your resilience and commitment to service. For those that have deployed and continue to be deployed domestically in support of the Australian community on operations such as Flood Assist; I thank you.

With effect from 03 November I relinquished the mantle of Master Artificer of Fitter Armament to WO1 Michael Nolan. During my tenure, it has been an ultimate privilege and honour to represent the Fitter Armament cohort and champion your causes.

Mick Nolan has broad depth of experience and most recently served as the ASM SASR, Career Advisor ECN 146 and Senior Enlisted Advisor on the Technical Workforce Review Team. He is well placed to champion the trade as we evolve to meet the needs of maintaining a technologically advancing Army through programs such as Small Arms modernisation, Protected Mobile Fires, Long Range Fires and Armoured Vehicle projects to name just a few. The Small Arms modernisation project should start to see items being introduced in 2023, especially the much long awaited Browning pistol replacement the SIG P320.

With the planned migration to the Weapon, Marine and Material Technician trades in 2023, it will require members to consider their future employment within Army. This transformation will impact the trade significantly, across all ranks, but primarily at the rank of CFN/CPL so a loss of all that experience will take time for ECN 146 to recover from. My only suggestion is to do what feels right for you. You will still be able to conduct all elements of your training and qualifications in line with your endorsed technical authority. As always due to the people within the trade, we will accept the challenge, regroup take what opportunities we can and move forward.

For those members that are posted, travel safe and I hope that the relocation with family goes well and as stress free as it can. I too am on the move to the West and HQ13 Bde, so if you're in town I'm always happy for a chat and brew.

For those that are separating at the end of the year, thank you for your service and best of luck in your new endeavours.

***Arte' et Marte'***



## WO1 Michael 'Mick' Nolan – Incumbent 2023

G'day Ladies and Gents, I'm incredibly honoured to be appointed as the Master Artificer for ECN 146, Fitter Armament, taking over from WO1 Michael Waters.

I enlisted into the Army on 17th January 1989 as an Apprentice Fitter Armament. After completing my apprenticeship, I served in numerous units across Army at the various rank levels providing solutions and advice on technical, logistical and personnel matters. Currently, I am the Senior Enlisted Advisor for the Technical Workforce Review Team within Directorate of Logistics - Plans.

As the incoming Fitter Armament Master Artificer, I view my role as being the senior representative for all members of our trade, with an emphasis on the following:

- Promoting trade mastery at all levels
- Providing strategic technical trade advice
- Advising on new trade related capabilities
- Assisting the HOC with relevant advice on trade and professional matters and
- Communicating issues relevant to ECN 146

As a current ECN 146, the training you received in both trade and all-corps have been designed so you can achieve one thing: delivering a technical effect on land materiel in support of the Joint Force to win the fight. Everything else is just noise. A quote by the American author John A. Shedd is a perfect analogy that describes this:

*"A ship in harbour is safe, but that is not what ships are built for".*

Technology has advanced exponentially and continues in its acceleration. An ECN 146 Fitter Armament is expected to operate independently and exercise technical authority in order to deliver the desired technical effect. If not done confidently and competently it can have catastrophic consequences. Technical Mastery of our trade is paramount in a world where the integration of technology and personal accountability contribute to an increasingly lethal environment.

An ECN 146 Fitter Armament, now and in the future, will operate in a more uncertain setting and face increased operational demands on both the individual and the organisation, concurrent with the increased operational demands placed against both soldier and organisation. The increased demand for maintenance and engineering support to Joint Force elements in such a chaotic setting requires an increased proficiency of combatant skills and a greater understanding of Combined Arms tactics, techniques and procedures. You need to train like you go tomorrow.

During my tenure in this appointment, I aim to engage with you regularly; in-person wherever possible and via email at other times. I am very keen to speak with as many of you as possible and I encourage you to reach out to me directly to discuss your concerns. Feedback from you is key to creating an environment where frank discussion at unit level is captured and turned into action.

If you have any concepts, topics of discussion or ideas of how a Fitter Armament can achieve mission success as part of the Joint Force, contact me at [michael.nolan@defence.gov.au](mailto:michael.nolan@defence.gov.au). And for those members separating at the end of the year, thank you for your service and best of luck in your new endeavours. **Arte' et Marte'**



## Master Artificer – ECN 226

### WO1 Mark Ingleton

I was humbled to be nominated by my peers as the Master Artificer for ECN 226 Recovery Mechanic.

For those of you that I have not had the pleasure of meeting, I have included a brief outline of my career. I joined the ADF in 2002 as a direct entry into Recovery. Since completing IET at Bandiana, I have been able to develop my skills and experience with postings to a variety of units including Aviation, Cavalry, and Infantry units and of course CSSBs. I have been afforded the opportunity to be able to maintain my trade knowledge and shape the next generation of Recovery Mechanics with postings to the

Recovery Training Centre, firstly as Instructor/Course Manager and then reaching the pinnacle of my career as OIC Recovery Platoon in 2021.

I have been fortunate enough to deploy overseas twice within my trade role. Firstly to East Timor as part of TLBG4 in 2008, and to Afghanistan in 2010 as part of OP Slipper. These deployments have provided unique opportunities to develop my trade and leadership skills and honed me as a Soldier / Tradesman.

I am looking forward to upholding my responsibilities as Master Artificer. So far in this tenure, I have been actively involved in many trade progression groups (M88 and L121), the DFRT pay case for Recovery and consulting with the senior Recovery cohort to streamline the training on the new fleet of vehicles.

My goal by the end of my tenure is to influence continuous improvement; specifically, in the areas of capability improvement, remuneration and retention of the beloved Recovery Mechanic.





## Master Artificer – ECN 229

### WO1 Marc Craigie

It is a privilege to be appointed as the Master Artificer for ECN 229, Vehicle Mechanic. I would firstly like to introduce myself to you offering some insight into my career thus far and provide you with an overview of my role as Master Artificer.

I enlisted into the Army on 16th January 1991 as an Army Apprentice Vehicle Mechanic from South Australia. After completing my apprenticeship, I served at the rank of Craftsman and Corporal in the 1st Brigade within Engineer and Armoured Regiments developing my foundation leadership and technical trade skills. At the rank of Sergeant and Warrant Officer Class

Two, I held technical appointments within the Regular Army, Army Reserve and Capability Acquisition and Sustainment Group further developing my leadership and technical trade knowledge but also developing a better understanding of the ADF strategic operations.

I have served in staff appointments in the 1st Division/Deployable Joint Force Headquarters and the Directorate of Soldier Career Management - Army as the career adviser for ECN 229 Vehicle Mechanics. I am in the last year of my current posting as the ASM of 1st Signal Regiment and I am looking forward to my next appointment as the ASM of the 7th Brigade.

I have deployed on Operation CATALYST to Iraq in 2005 and Operation HIGHROAD to Afghanistan in 2017, as the ASM for Task Group Afghanistan. I have been fortunate to be deployed in representational roles in 2002 to Papua New Guinea on Exercise PUK PUK and in 2008 to Israel to commemorate the opening of the 'Park of the Australian Soldier' in Beersheba whilst posted to 12th/16th Hunter River Lancers.

I am married to Joanne and we have two sons, Sam (18) and Alex (16). I am an avid supporter of the Carlton Football Club and I support my son's local AFL clubs as a volunteer. In my spare time, I enjoy playing golf and fishing.

My role as directed in RAEME Corps Instruction Number 39 – Master Artificers is to act as the key representative of the trade, with emphasis on trade mastery and input to new trade related capability. The responsibilities assigned to me are:

- To seek out and collate all changes in industry best practice to enhance and progress their trade
- To provide the HOC with technical advice relevant to trade interaction with Army, and wider maintenance considerations
- To provide analysis and commentary on recruiting and retention issues affecting their allotted trade
- To improve trade governance
- To provide trade related input to relevant Working Groups affecting their allotted trade, including EC&TD led reviews and submissions (including ECRC and to DFRT), and doctrine review.

More broadly, I want to engage with members of the trade and look for areas that we as a group can gain efficiencies and get some small wins. Therefore, I am keen to hear from members and actively encourage you to reach out to me directly. I will provide open advice and guidance to you all and I look forward to collaborating with my fellow Master Artificers over the next two years as your representative.



## Master Artificer – ECN 235

### WO1 Keith Brown – Out going

I'm not going to supply a background of my Defence career as it is in a prior issue of the RAEME magazine, and I'm continuing in the role for another year. Next year, I will be handing over the Master Artificer role to WO1 Grant O'Leary at the Corp Conference as I am fast approaching my CRA (Grant's Bio is below).

I will however provide a brief background of life prior to Defence; I left school in 1979 and started my trade as an apprentice Boilermaker in the mining industry. I worked on many sites constructing a range of equipment such as coal breakers and underground rail cars, the West Gate Bridge, BHPs steel plant

production plant Kooragang Island, high gas pressure pipes, and x-ray quality welding for specialist projects. Lastly, I worked on high-rise buildings in the Sydney CBD conducting welding and fixing other people's mistakes, until 1992, when I joined the Army. I'm married to Mim and have three children, two currently at university and one working in the Victorian Court system, my interests are abseiling, camping (real camping with beers/fire) and metalwork.

In my role as Master Artificer Metalsmith, I provide welding/material advice to CASG on welding procedures, due to RODUMS submitted by Defence units, such as the 40M crane boom extension rust issue. I also provide advice to Metalsmiths on the correct EMEI to use for repairs as well as who to contact at CASG when they have equipment issues. I also assisted in updating any components of the EMEI's that affected the Metalsmith trade. Using this forum, I would like to thank WO2 Jamie Smith at VSME for his work on updating the EMEI Workshop D161-1 Steels – Heat Treatment and Mechanical Tests that he completed this year.

My responsibilities are as per the Corps instruction for Master Artificers. Currently this year, I have provided trade/training advice to the Technical Workforce Review. In early December 2022, the RAEME pay case and changes to the employment category will be heard by DFRT. This will change the name for ECN 235 from Metalsmith to Material Technician, and also the skill grades will reduce from the current nine grade to four. It will add the requirement of training in the following distinctive skills: fitting, advanced welding, and machining. With emerging technologies, the category will be trained in advanced manufacturing (which will eventually include 3D additive manufacturing and CNC machining). Advanced machining will transition from Fitter Armament to the Material Technician and the Material Technician will also have an ab initio entry pathway where Certificate III will be awarded through Initial Trade. Some of these skills will be Unit needs courses, conducted when a unit requires the skills, similar to how the special welding courses are conducted now.

I have worked with AFV SPO to modernise welding repairs to armoured vehicles. To do this, I attended a demonstration of Ultrasonic Peening, which as opposed to normal peening, you can control the cycle and the level of impact as well as adjust the peening tool for different materials. This equipment, if it comes into service, provides stress relief to welds and will refine the HAZ, therefore minimising the chance of cracking and can be conducted in the workplace and in a deployed environment.

The main ongoing issue is the lack of guidance on the safe removal of PUP on equipment prior to conducting any heating or welding repairs. This is an important health and safety issue that needs to be addressed. Due to isocyanates being released from the PUP at temperatures of approximately 300oC, which is a hazardous material known to cause cancer.



## WO1 Grant O'Leary – Incumbent 2023

WO1 O'Leary joined the Army Reserve in September 1992. Then after completing an apprenticeship in engineering fabrication, he transferred to the Australian Regular Army as a metalsmith in RAEME, in July 1998.

He has been posted to a diverse range of units and appointments which include: 1st and 3rd Combat Service Support Battalions, 10th Force Support Battalion, Trade instructor at Army School of Electrical and Mechanical Engineering, Squadron Artificer Sergeant Major for 1st Armoured Regiment, B Squadron 3rd /4th Cavalry Regiment, 2 Cavalry Regiment, a Technical Warrant Officer for Royal Military College – Australia, and his last

appointment as Regiment Artificer Sergeant Major for 1st Armoured Regiment.

He has seen operational service in East Timor for Operations CITADEL (2003) and SPIRE (2004) as a Metalsmith with 1 Battalion Group and 1st Combat Engineer Regiment. In 2007, he went to Iraq on Operation CATALYST with the Australian Army Training Team VIII as a maintenance adviser / instructor.

Grant is married to Lesa, and they have four children and two granddaughters. His interests are mountain biking, camping, and woodwork.

***Arte' et Marte'***



## Master Artificer – ECN 411

### WO1 Peter Chambers

As a way of introduction my name is WO1 Peter Chambers currently working within UHPO – L4507 rapid acquisition project for UH-60M Black Hawk. I have served 31 years in Army and hold the honorary appointment of Master Artificer representing ECN 411 – Technician Aircraft trade within RAEME.

I have the pleasure of operating with highly talented and professional RAEME technicians across the 16 Avn Bde Regiment suite and CASG projects. I have operated with Iroquois, ARH, MRH-90, CH-47F and S70A-9 weapon systems providing aviation capability to Defence, underpinned by a highly trained workforce. I have progressed through all ranks and trade positions achieving the distinguished position of Regiment ASM in 6 Avn Regt in support of Special Operations.

I believe supporting the soldiers and their families is of the utmost importance and will ensure that continues to be a primary focus, whilst promoting technical mastery through innovative training and mentoring in support of current and future weapon platforms.



## Master Artificer – ECN 412

### WO1 Jason Hawke

I am both humbled and honoured to be appointed Master Artificer for the Avionics trade, and I tip my hat to our inaugural Master Artificers and their part in establishing this vital role within our Corps, well done.

Many of you will have heard words to the effect of, 'challenges are opportunities', and how about the saying, 'the only constant is change'.

Many will view the future with trepidation for the uncertainty we in RAEME and Defence are currently facing, particularly as we consider how outcomes from the Defence Strategic Review and Commonwealth financial constraints may impact us and the capability we provide.

In the 35 years since my enlistment, I have seen Army, and our trade, progress through a lot of change. As a 43rd class Electronics/Radio Apprentice, we trained on the Vietnam era AN/PRC-25 set radio. When I first arrived at Oakey Workshop Battalion in 1991, we were using micro-fiche parts catalogues and hard copy log cards for the Kiowa, Iroquois, Porter and Nomad aircrafts. Since then we have merged the aircraft radio, electrical and instrument trades into 'Avionics'. We have had two versions of CAMM, our AATTRs moved to PEX, there have been multiple variants, upgrades and replacements of all of our aircraft, and the components we maintain have transitioned from individual transistors and incandescent globes to Multi-Function Displays, Mil-Spec data buses, laser gyros and Automatic Flight Control/Pilot Systems. Through all of these changes in military aviation, it is the avionic technologies that have experienced the most significant advances, and the importance of the Avionics Technician continues to rise. Our near future troop lift, gunship and UAS platforms with their latest generation avionic and aircraft management systems will see the ECN 412 skills set even more vital than ever before.

We are experts at change, and every change we face presents us with incredible opportunities. Whatever the future holds, we will adapt and we will grow. I look forward to this next phase of the journey, with you.

***Arte' et Marte'***





## Master Artificer – ECN 418

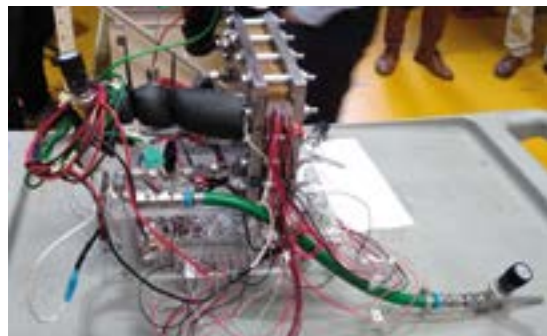
### WO1 Wayne Davis - out going

In 2022, as my two year appointment as Master Artificer Technician Electrical (MATE) turned into a third year, the request for Master Artificer (MA) engagement became more frequent, as more people became aware of the existence of the MA. Many came calling on us as a source of technical capability advice and strategic technical trade advice for current and future projects in Army.

Not long into the New Year, the AHQ Land 8140-Deployed Force Infrastructure (DFI) capability manager contacted me to draw on my knowledge and advice in matters concerning power generation. I was asked to confirm requirements, as well as help shape the outcomes of the power-related projects that L8140 had commissioned. I visited three Defence Innovation Hub (DIH) sponsored power projects in 2022. The job of the MATE was good already, but in 2022 it got exciting!

### RMIT

At RMIT, the school of Engineering is developing a prototype portable, rechargeable and silent power supply that uses a high capacity metal hydride storage medium, based on a reversible hydrogen fuel cell producing up to 2kW. The Unitised Regenerative Fuel Cells (URFC) stack consists of 10 multi-serpentine bipolar plates, made from 0.1m thick stainless steel sheet which are gold coated (literally the gold-plated solution!), each stack produces 270W of power; quietly and without much heat at all. This is clever stuff and a little ways off, but exciting science none the less.



### FLORESTAN

Florestan, a technology development company in Sydney, is developing 3 kW and 80-100 kW micro turbine power generators capable of operating with multiple types of hydrocarbon fuels, including biofuels. These systems will be developed for ground power unit, and may also be used as auxiliary power units. Visiting the test facility at Florestan, we saw the demonstration of the current state and discussed the remaining challenges for the project. Yes, it turned diesel into a bit of high-pitched noise, but it produced a heck of a lot of power out of a small box.





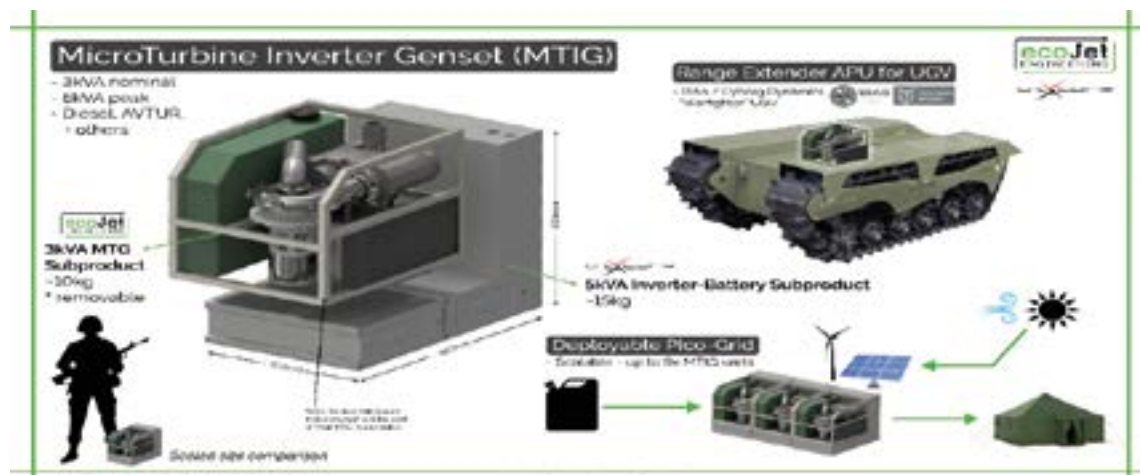


The Micro Turbine System (MTS) Generator that they have developed has an output Voltage: 100kVA 50Hz 3 Phase 240V/415V with a total weight of 648kg, its compact form factor and weight allows it to fit within the tray of ute or 6x6 Cargo. This is a significant difference to current in-service 120kVA (the equivalent in capacity) with a total weight of 4 ton and requiring a MDM weight trailer for transport. The future for Florestan is doubling fuel efficiency with a heat recuperator (which will also reduce the noise) and a few other mods. At the time of printing, an application to progress this further is being processed.

## ecoJET

ecoJet Engineering is a South Australian company, who develop novel micro turbine technology. They were selected as part of Army Innovation Day. DIH has engaged with ecoJet in the field tactical MicroTurbine Inverter Genset (MTIG) with UPS, Pico-Grid and UGV APU Capability project.

The MTIG consists of two parts being the MicroTurbine Generator (25kg) and Inverter-Battery and picogrid (15kg). Providing 3 kVA on-demand power generation from internally stored fuel. This power is used for constant-current charging to the batteries. The Inverter-Battery acts as the primary user interface and provide energy storage, power outputs and power management systems. Producing 3kVA nominal/5kVA peak continuous output power and nominally 2kW/hrs of energy storage. The ecojet provides primary charging for the Inverter-Battery; however, external energy sources may also be incorporated. The exciting aspect of this project is the compact size and weight compared to in-service systems.



## RICO & 3ME

The Robotic and Autonomous Systems Implementation Coordination Office (RICO) requested my continued support to assist 3ME Technology, in the development an all-electric PMV (ePMV). The finished product was unveiled at the Chief of Army Symposium in August. Powered by a battery, giving a maximum all-electric range of 300km, the ePMV could also be built with a larger battery for a far greater range.

It accelerates from 0-72 km/h in 11 seconds with a max speed of 86km/h, for now. It is also able to export sufficient power to supply six domestic homes for a 24 hr period and has the ability to connect into a FPDS, to supply a deployed element or charge from an in-service generators.

The simple interfaces make it user-friendly for an ECN418 to make maximum use of its output. The all-electric version will continue to be trialled to explore greater functionality and other options. The ePMV is expected to enter the field, eventually employing a hybrid electric drive for 140kW power and 480Nm continuous torque, with a diesel engine that acts as a range extender.



### The next in-service solution

L8140 Tranche 1 has selected Enquest Australia as the OEM for the replacement fleets of Small (SPGS) and Medium (MPGS) Power Generation Sets. High capacity power will be addressed by the Project, in Tranche 2. Enquest Australia, will supply a like-for-like replacement of the in-service power generation mission systems. The maintenance of the L8140 mission systems will be representative of the replaced systems.

The SPGS that will be offered will comprise the following:

- 1.8kW 28V DC model LFG1800AU
- 4.5kVA 230V AC, model SFG4500AU

The MPGS that will be offered, by Enquest, will comprise the following:

- Enquest 8kVA 230/400V AC 3 Phase Parallelable MDM Power Gen Set, MPG80AU
- Enquest 16kVA 230/400V AC 3 Phase Parallelable MDM Power Gen Set, MPG160AU
- Enquest 30kVA 230/400V AC 3 Phase Parallelable MDM Power Gen Set, MPG300AU
- Enquest 160A Paralleling Box, MPPB160AU
- Enquest 700L Transportable Fuel module, TFC700AU



All pictures and diagrams are indicative only of the final product to be delivered.

More information on the new fleets, can be found on the Enquest website:

<https://enquest.com.au/diesel-generators/militarygenerators>



There are many changes coming for the ECN 418 (including a name change, to Energy Technician) with new and exciting innovations within the trade emerging. For now, my time as the MATE has come to an end, in November I handed over the position to WO1 Sean Roberts who I am sure will continue to advance the status of the trade and the position of the MATE!







## WO1 Sean Roberts

I feel privileged and humbled to be appointed Master Artificer for ECN 418 - Technician Electrical. Firstly I would like to acknowledge foundation Master Artificers, particularly my predecessor WO1 Wayne Davis and his work with L8140 and the direction of the trade, which undoubtable will lead to better outcomes not only for the trade but the Army.

I enlisted in 1989 as a 44th Class, Apprentice Electrical Fitter (ECN 147), after completing training at Army Apprentice School and RAEME Training Centre is was let loose on the Army to practice my trade. I have had numerous posting working with Armoured, Transport, Special Operation Units, Signals, Artillery, Engineers, in Trade-Training and Headquarter Elements. Whilst

wide and varied range of positions, the job has really remained the same, which is making the equipment work correctly, the odd electrical integrity inspection and educating equipment users.

The next biggest change for RAEME is the outcomes of the Technical Workforce Review. It will lead to changes in our trade, due to new equipment, technological advancement and the evolution of the Army. Whilst this change can seem a little daunting, you will notice I join as and ECN 147 and have lived a change in trade name, ECN and training giving me insight and understand of the apprehension. My word of wisdom is it will not change your job greatly and may actually open you to aspect you have never considered. Please embrace the change and provide the advice to improve when requested.

During my tenure as Master Artificer for ECN 418 - Technician Electrical, I look forward to working with the other Master Artificers and representing the "Elecie", whatever the name or ECN. Please reach out if you have any questions or ideas regarding the trade. My final thought is, we are all traveling through this expedition at one second per second and the journey is far better than the destination, so enjoy the journey.

***Arte' et Marte'***



## Master Artificer – ECN 421

### WO1 Benjamin Munro

I am honoured to have been appointed as the Master Artificer for ECN 421 – Technician Electronic Systems. Before introducing myself, I'd like to acknowledge the previous Master Artificers for the exceptional work they did as the inaugural Master Artificers, particularly CAPT Roger Smith who held the position prior to me.

I enlisted in 1998 as an ECN 422, Technician Electronic Systems, going on to spend the early years of my career specialising in various electro-optical, air defence and radar equipment. My trade-related positions have included postings to School of Artillery, 20th Regiment, Royal Australian Artillery, 7th Battalion, Royal Australian Regiment and Capability Acquisition and Sustainment Group. Outside of trade, I have had positions at the Warrant Officer and Non-Commissioned Officer Academy and Headquarters Special Operations Command.

I have been fortunate to deploy a number of times; including as the ASM of TG Taji. Each deployment was unique but all afforded me the opportunity to observe coalition partner approaches to maintenance of electronic equipment.

In 2017 I had an opportunity undertake employment with Geoscience Australia, developing my technical trade skills and maintenance management knowledge outside of Army's practices. As a Technical Officer responsible for the maintenance of Australia's seismic network, I was asked to lead a field team installing nuclear monitoring equipment in Antarctica during Summer 2017/18.

In the face of constant technological advancement, all trades within RAEME are approaching a period of considerable change; this includes ours. I encourage you to seek out and become familiar with information that affects your future, in particular, the Technical Workforce Review that is currently underway.

Over the course of the next two years I look forward to engaging with, and representing, you – the boffin. Please reach out if you have any questions or ideas regarding our trade.

***Arte' et Marte'***



---

## Message from SO2 Corps

### MAJ Steve Howells

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

If you weren't aware there has been a total changeover of the HOC Executive over the 22 – 23 posting cycle.

I wish to thank the departing HOC (BRIG Allen), DHOC-Gnd (LTCOL Wilson), DHOC-Air (LTCOL Groves) and RSM (WO1 Collard) for the guidance, assistance and dedication to their extra Regimental appointments to the Corps, it was a pleasure working with them all and I wish them all the best in their new positions.

I also want to welcome the new HOC Executive – HOC BRIG Slaughter, DHOC-Air LTCOL Watling, DHOC-Gnd LTCOL Soper and RSM WO1 Tynan, I look forward to working with you all over the next many months.

Supporting the HOC Executive is the HOC Cell, for the last 12 months it has been myself and SGT Rob Clarke, two reservists doing the best we can. Well done Rob in keeping up to date with requests for Recognition of Service Certificates (plus other certificates), demand for Corps Shop items and the other varied tasks you complete. This year we have WO2 Dan Foyel join us, welcome Dan, and we hope you enjoy your time in the cell, especially your first priority task of re-writing all the Corps Instructions.

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 2023 and think about writing about all the fantastic things you're doing, taking a couple of photos and send them to us for the 2023 edition of the CFN Mag.

***Arte' et Marte'***





## Message from the Editor

### WO1 Dave Clarke

Welcome to the 2022 edition of The RAEME Craftsman. I look at The RAEME Craftsman magazine as time capsule to record and save the Corps history on a yearly basis. I went back to the 1985 edition and read an article about myself as an OJT competing for Adelaide Workshop Company in rifle shooting; SLR not .303! So, I encourage you all to submit articles, so that the magazine can continue to capture our rich and varied history.

I mistakenly thought I would struggle for articles on Operations for this edition. However, whilst reading through the Unit Jottings that had been submitted, I was quickly made aware that the Corps has in fact been extremely busy supporting domestic Operations such as COVID Assist & Age Care Assist. Not to mention Op Flood Assist 2 in NSW, QLD & Vic.

I want to thank everyone that took the time to submit articles this year. I'd also like to thank the BDE ASMs that helped me get the word out to the units. The articles were very slow to come in this year, but once the word got out they came in steadily; although we are down on what we normally receive. We have managed to get a variety of articles, which should appeal to most people. I'd like to thank the people that responded to my call for articles on Facebook. Particularly, CAPT Kate Thorne who submitted an article on her experiences in Syria as part of UNTSO; and CAPT Nathan Pagulayan who wrote an article about JLU(SQ) and how they prepared the vehicles gifted to Ukraine.

As I mention 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, particularly in regards to the Technical Workforce Review (TWR); this will revolutionise the RAEME Ground Trades structure. Governments decision to focus on littoral operations means, that not only will Army be procuring new and bigger watercraft; RAEME will be introducing a new Marine Technician trade to support this capability. There are articles on both the TWR and the new marine capability from Hydrographic SPO – Army Marine in this edition. Not to mention a very interesting article on Advanced Manufacturing (AM) and how it has been trialled at 1CSSB and will be rolled out across all WKSP COYs in the future; which is also influencing the TWR.

RAMS have once again been busy and have submitted an article about Introduction of Defence Aviation Safety Regulation Aligned Training at RAMS and a visit their members did to the Applethorpe State Primary School. Unfortunately, this year we did not receive any other articles from our aviation brethren.

ASEME had a very busy year, with a number of activities such as opening a memorial to Recovery Mechanics who have lost their lives whilst serving; having a team compete in the Melbourne Marathon raising funds for Soldier On; and taking part in a charity drive for children in hospital over Christmas. Not to mention supporting OP Flood Assist in Victoria. OC Careers and Advanced Training Wing (CATW) has written another article detailing how CATW are continuing to work through the issues that units are experiencing with Distributed Maintenance Training (DMT). ASEME finished the year by celebrating The Corps 80th Birthday with a parade and RAEME Birthday sports day; which included a fiercely contended Bot War.

I would like to congratulate all of those members of the Corps that received awards throughout the year. This includes those very deserving members that received Corps Awards. Unfortunately, I don't have any photos of these awards being presented. 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 and in the Army Newspaper this year of RAEME members receiving awards, yet nothing is being forwarded to HOC Cell recognising these achievements. It doesn't have to be war and peace, just a paragraph in a word doc and some photos with captions.

The worst part of my job as editor is compiling the list of members that have passed away. Each year we receive a number of emails regarding members that have passed and we keep an eye on the RAEME Facebook pages. Unfortunately, the details provided varies greatly and can be light on for detail. Therefore, I've kept the details in the Vale' notices to just the members name and the month they passed.

Can I ask that if you are providing articles for the 2023 Craftsman, that if you submit articles with photos in them, we also need you to send the photos separate to the article and labelled as you want them to appear. If you decide to 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.

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 2022 edition of the RAEME Craftsman, as much as I've enjoyed putting it together.

# ARTICLES

---

## The Technical Workforce Review

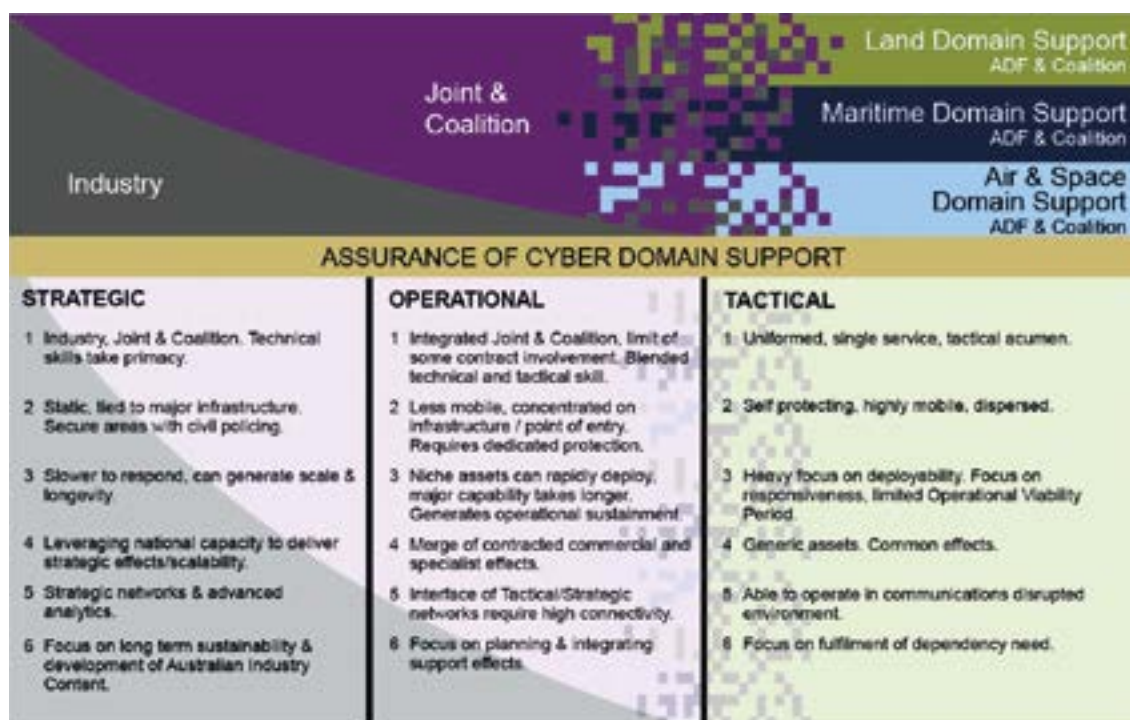


*The RAEME Craftsman will always be required to deliver technical effects at the point of need*

Army Head Quarters has reviewed all RAEME Ground Trades and has commenced reform to modernise our Craftsmen to prepare them for the next war. The Australian Army's mission is to prepare land power to enable the Joint Force in peace and war. The Australian Government has directed Defence to implement a new strategic policy framework that signals Australia's ability – and willingness – to project military power and deter actions against Australia. This requires anticipating changes shaping future conflict which affect the generation of Land capabilities.

The Defence Transformation Strategy provides the framework and vision for long term, enterprise-wide transformation. Army's Contribution to Defence Strategy, Edition 2 reinforces the approach to meet this strategic guidance. It articulates current and future challenges as part of a concept-led and threat aware approach to the \$55 billion modernisation of Land capabilities.

Accelerated Warfare means that Army needs more capacity and new capabilities and concepts to generate Joint Force options to shape, deter and respond. The RAEME Ground Trade employment categories provide the Maintenance Engineering, Materiel Maintenance and Recovery means to enable and sustain these capabilities at the operational and tactical level within Land, Joint and Coalition deployed environments.



*RAEME ground trades provide support to the Joint Force across the continuum*

The Chief of Army has identified Army's training and workforce systems are at the centre of transformational changes.<sup>1</sup> These changes enable Army to realise the potential of new operating concepts and capabilities for Army and the Joint Force. Global and technological challenges are increasing the demands on and for our people and Defence capability. These challenges include conflict, a global pandemic, natural disasters, changes to Australia's demographics and people's expectations for varied careers and job flexibility.

Post the July 2020 Defence Strategic Update, an Army priority has been creating a people capability system to enable rapid mobilisation. Army is facing significant skills shortages in line with the wider Australian community. The COVID-19 pandemic highlighted Australia's reliance on a global supply chain and foreign engineering capacities. There has been a subsequent focus within Australia on building sovereign capacity both within the Defence sector and across the wider maintenance engineering and domestic manufacturing sectors. This has exacerbated the skills shortage, increasing the competition for Science, Technology, Engineering and Mathematics (STEM) and technical trades.

On 10 March 2022, the Federal Government announced an ADF personnel increase of approximately 30 percent by 2040, an increase of 18,500 over baseline growth already agreed. The estimated cost of the personnel expansion is at least \$38 billion over the period to 2040.<sup>2</sup> In making this commitment, the Federal Government acknowledges the need to grow the type of people and skills required to operate cutting-edge capabilities to defend Australia and its national interests in order to advance Australia's security and prosperity.

Since 2006, the ground trades soldier's role has evolved, shaped by many influences; most significantly:

<sup>1</sup> Army's Contribution to Defence Strategy, Edition Two | Army.gov.au

<sup>2</sup> Defence workforce to grow above 100,000 | Defence Ministers

- increased technical complexity of modern platforms
- trade modernisation
- increased competition for technical trades across the wider maintenance engineering and domestic manufacturing sectors
- adaptation for Accelerated Warfare<sup>3</sup>.

To keep pace with potential adversaries Defence has become more connected, protected, lethal and enabled. The complexity of modern platforms requires broadly skilled technicians capable of working with disparate systems and understanding the implications of multiple system faults. Integration of electronic systems into traditionally mechanical or electro-mechanical systems including vehicles, generators and weapons requires a shift in trade skills. Trades that have traditionally focussed on mechanical systems now need to be able to understand, diagnose and maintain integrated electrical and electronic systems.

Australia's deteriorating strategic environment has required a wholesale change to Army's force structure to enable the Land Force Support System to meet emerging threats. Rapid acquisition of new Land equipment will require significant change to the maintenance workforce to enable them to perform more complex tasks in remote and often arduous locations. <sup>4</sup> Defence's approach to recruiting, training and retention has been forced to adapt in order to provide employment opportunities in a wider variety of service categories. This has been facilitated through partnerships within both industry and academia. <sup>5</sup>

## TWR History

The Technical Workforce Review (TWR) was initiated in 2019 under Plan CENTAUR, and was tasked to ensure technical capabilities within Army were contemporary and fit-for-purpose to support the significant investment in new ADF equipment being introduced across the next decade. The Technical Workforce Review Team (TWRT) closely examined what Land Materiel was most likely to be employed in a future conflict out to 2030 and beyond. From that analysis the review determined that the future fleets will be an evolution of current systems, rather than a revolution. Technology will continue to evolve at an accelerated rate, but the fundamental skills required to operate and maintain Defence platforms will remain generationally similar.

The review observed three key shifts from 2006 (time of last review) progressing toward 2030:

- **Integration** - The requirement to address the integration of electronic systems into traditionally mechanical or electro-mechanical operated systems.
- **Accountability** - Modern maintenance and workforce management systems track all activities including qualifications, competency, currency and authorisation.
- **Responsibility** - Due to force structure design, individual technicians will often be the single maintenance authority within a force element, having all of the inherent technical responsibility.

Originally designed as an Army wide Corps neutral review, it included the other technical Corps (RAE, RASIGS, some elements of RAAOC as well as similar trades within Navy and Air Force). In the first quarter of 2020, the TWRT sponsored a series of workshops to design future technical trades and incorporate the analysis undertaken through the Land Engineering Officer Review,

<sup>3</sup> Technology, the environment and demographics are interacting with changes in the behaviour of states and groups in cooperation, competition and conflict. This is increasing the likelihood of miscalculation or armed conflict, and is changing the ways that force is employed. The rate at which these changes are occurring is increasing, reducing the time available to adapt or respond. Army calls these changes Accelerated Warfare. *Army in Motion – Army's Contribution to Defence Strategy, Edition Two*, Department of Defence – Army, 1 October 2020.

<sup>4</sup> 2020 Defence Strategic Update, Commonwealth of Australia, 1 July 2020.

<sup>5</sup> E.g. BHP and UNSW.



modernisation initiatives from 'Future Ready Workforce' and the new HR system in ERP. Through this time, the TWRT was able to build workforce propositions to adapt current trades to provide the support that will be required in the near future, and expected in the longer term.

In September 2020, post presentation to the Army Employment Category Manager Senior Steering Group (ASSG), TWRT was directed to further develop workforce propositions for the proposed capability statements presented at the Course of Action (COA) Development and COA Analysis briefs. It worked closely with ALTC Workforce and Training Group to provide information that would inform the creation of draft Employment Specifications (ES), Industrial Relations (IR) propositions, and information required to support the submission of training continuum changes to a Training Modification Board. This sought to operationalise Future Ready Workforce Lines of Effort for Army's technical workforce.

The COA Analysis brief was a waypoint in the review's analysis progressing to the Employment Category Review Endorsement Meeting (ECREM). On 05 May 21, the Army People Capability Steering Group (APCSG) was briefed on the TWRT findings to allow Fundamental Inputs to Capability (FIC) owners to flag any potential issues prior to Director General Army People Capability (DGAPC) exercising his delegation at a desktop ECREM. Achieving ECREM endorsement was a key gate to enable the progression of an IR proposition to the Employment Category Review Remuneration Committee (ECRRC).

The ECRRC is a Joint committee responsible for examining the industrial merits and rationale behind Joint and Service Employment Category IR propositions. This ensures established pay structure relativities, as far as practicable, remain in harmony and that sufficient justification is evident before recommending a matter be progressed to the Defence Force Remuneration Tribunal (DFRT).

In 2021 the TWRT had a significant change over and loss of staff, with the departure of LTCOL Troy Wilson in January (to CO ASEME), LTCOL Ben Shaw in May and CAPT Peter Stanton and WO1 Nigel Keats posting out in December, leaving MAJ Matt Jefferies as the TWRT continuity. In January 2022 he was joined by WO1 Mick Nolan, and together they have worked steadily towards reaching key TWR milestones throughout the year.

Also vital to the work were the Employment Category Management (ECM) section within Workforce and Training Group (W&TG), located at ALTC. Key support was provided by WO1 Mark McLean, WO1 Stephen Luke, WO1 Paul Kitching, CAPT Chiara Di Girolami and MAJ Brook Buchan. From close collaboration in the building of the new Employment Specifications (ES) and new career progression charts to answering numerous RFIs on Army Employment Category Management (AECM) issues, their attention to detail has ensured that the future RAEME workforce and the various employment categories are feasible, affordable, sustainable and deployable.

The focus of early 2022 was building and refining the RAEME Ground Trade submission to be presented to ECRRC late April, where the proposition was accepted. Building from that success, TWR and W&TG set to work expanding the ECRRC submission in order to provide greater depth and detail. This is to provide the DFRT members a greater understanding of the requirements for change, maximising flexibility within all service categories and the value assigned to capability.

This restructure of Army's Electrical and Mechanical Engineer ground trades employment categories will provide the Army and wider ADF with a more contemporary and effective electrical and mechanical engineering capability.



The TWRT submission to DFRT proposes the following:

**Rename** the Fitter Armament employment category to Weapon Technician and amend the structure to reduce the number of skill grades from nine to four.

**Rename** the Mechanic Vehicle employment category to Vehicle Technician and amend the structure to reduce the number of skill grades from nine to four.

**Rename** the Metalsmith employment category to Material Technician and amend the structure to reduce the number of skill grades from nine to four.

**Rename** the Technician Electrical employment category to Energy Technician and amend the structure to reduce the number of skill grades from eight to six.

**Rename** the Technician Electronic Systems employment category to Electronics Technician and amend the structure to reduce the number of skill grades from nine to seven.

**Rename** the Mechanic Recovery employment category to Recovery Technician and amend the structure to reduce the number of skill grades from thirteen to five.

**Rename** the Artificer Ground employment category to Artificer Land and amend the structure to incorporate the existing Artificer Mechanical and Artificer Electronic employment categories, and the corresponding Warrant Officer skill grades in the current Mechanic Recovery employment category.

**Disestablish** the Artificer Mechanical and Artificer Electronic employment categories and re-establish their skill grades and capability within the Artificer Land employment category.

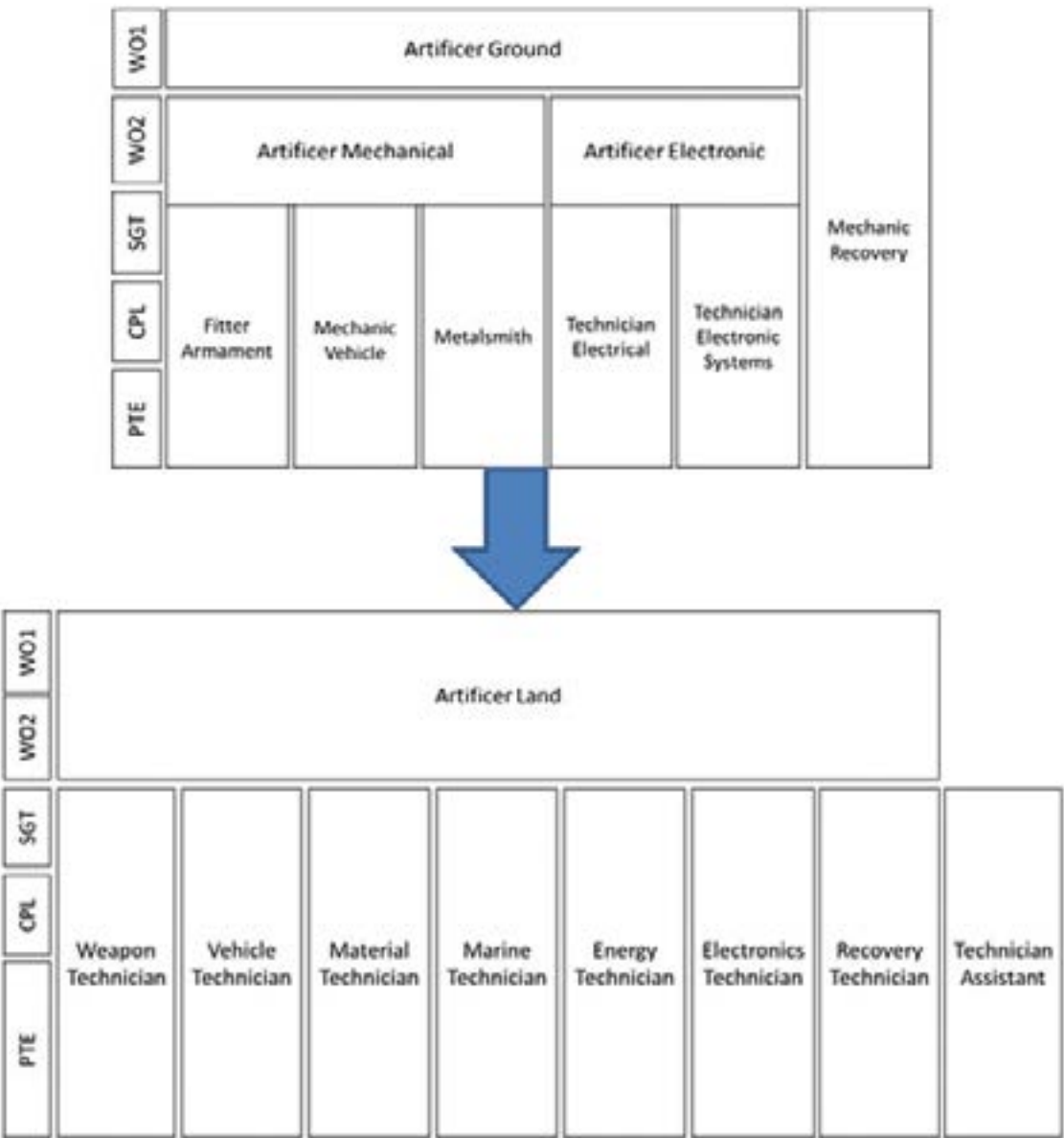
**Establish** the Marine Technician employment category consisting of four skill grades.

**Establish** the Technician Assistant employment category consisting of a single skill grade.

The current RAEME ground trades structure transitions the workforce through a number of employment categories to create a pathway for mastery at Artificer Ground. It has three pathways: the mechanical trades, electronic trades and recovery. To more effectively support Army, the TWR proposed a transition for the trades from the current three pathways to a single pathway for all technicians. The review recommended contemporised naming of employment categories and capitalising on a common through-career training system.

See the below diagram which illustrates the proposed change from current RAEME ground trades structure to proposed RAEME ground trades structure.

Current RAEME Ground Trades Structure



Proposed RAEME Ground Trades Structure

The proposed structure recognises the integration of systems across trades and fleets and seeks to create a single pathway to enable accountability and technical responsibility. If successful, by the time you read this, the DFRT submission would have been considered with scheduled implementation commencing from May 2023.<sup>6</sup> A detailed implementation plan will be made available to all members after the DFRT decisions have been made. Once ECN 222 positions are confirmed, it is likely a call for Expressions of Interest (EOI) to transfer to Marine Technician will be sent out to existing ECN 229/146 who already have some or all marine qualifications.

The TWRT’s successes have been a result of engaging with key elements/organisations across the technical space within Defence. Since inception, the TWRT has conducted multiple working

<sup>6</sup> The DFRT hearing is scheduled for 06-08 December 2022 with implementation commencing 11 May 2023 (note ECN 222 Marine Technician implementation will be delayed).

groups across the three Services to ensure that they were fully informed of the proposed changes and understand the impacts on their part of the organisation. During these engagements TWRT sought their consensus to the proposed changes as their support would be needed to enable the DFRT submission to be presented. TWRT has also received consistent feedback from the Corps, with great interest in:












- **ECN 222** – Marine Technician
- **ECN 235** – Material Technician
- **ECN 034** – Technician Assistant

### ECN 222 – Marine Technician

A new dedicated employment category with a four skill grade structure. This employment category will be required to support the expansion of Army Littoral Manoeuvre capability designed to provide independent intra-theatre shore-to-shore manoeuvre in order to sustain the Joint Force in littoral and riverine environments.

The employment category will provide a marine maintenance capability which is currently provided by specialist trained members in the Fitter Armament or Mechanic Vehicle employment categories. The Marine Technician employment category will align training specific to the support of maritime platforms/equipment.





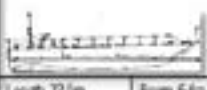



The ADF requires specially trained, enabled and readied forces to undertake Littoral Operations as part of a maritime strategy in order to Shape, Deter and Respond to threats in the vast archipelagic areas of the Indo-Pacific. The Marine Technician will have an ab-initio entry option and be employed in-support of vessels procured as part of the strategic shift in Australia's maritime forces. Army must be able to "project force at long range from Australia, [and] operate across vast distances."

| Platform Allocation |   |  |  |  |   |  |  |
|---------------------|---|--|--|--|---|--|--|
|                     |   | Darwin   |  |  | Townsville  |  | Perth  |
|                     |   | <br>LMR | <br>5 RAR | <br>JTC | <br>LMR | <br>2 RAR | <br>16 RWAR |
|                     |   |  |  |  |   |  | TOTAL  |
| LMV-H               |  | 8  | -  | -  | -   | -  | 8  |
| LMV-M               |  | 6  | -  | 2  | 7   | -  | 15   |
| LMV-A               |  | 4  | -  | -  | 11  | -  | 15   |
| LMV-P               |  | -  | 10   | -  | -   | 6  | 16   |
| Small Boats         |  | -  | 24   | -  | -   | 24   | 60   |
| Total               |   | 18   | 34   | 2  | 18  | 30   | 114  |

Platform quantities are **indicative** without pre-supposing investment decisions and require further Basis-of-Provision/Basis-of-Issue analysis prior to Government consideration.

\*The next-generation fleet images and dimensions are indicative only and do not represent any specific intention by the Commonwealth to acquire such platforms.

This requires the enhancement of military means of regional force projection and lift capabilities consisting of new large landing craft, special operations vehicles, watercraft and long-range rotorcraft. Importantly, the ADF requires a robust maritime strategy, underpinned by a Joint Force approach, to meet the strategic ends.

| Legacy Fleet  |                       |             | Next-generation Fleet  |   |
|---|-----------------------|-------------|--|---|
|  | Regional Patrol Craft |             |   | Littoral Manoeuvre Vessel - Patrol (LMV-P)<br>Riverine & Close Support<br>S.8710 Army Littoral Manoeuvre, IOC 2025, BOP 12-15   |
| Length 9.6m   | Beam 2.85m            | Height 3.0m | Length 15.9m Beam 3.8 Height 5.6   | Provides littoral manoeuvre and support for reconnaissance, patrolling of coastal channels, etc. through littoral environments. Also capable of escort and security tasks.  |
|  | LARC-V                |             |   | Littoral Manoeuvre Vessel - Amphibious (LMV-A)<br>Over-the-shore Mobility<br>S.8710-1B Army Littoral Manoeuvre, IOC 2025, BOP 18-21   |
| Length 13.7m  | Beam 3m               | Height 3.4m | Length 10.7m Beam 3m Height 3.4m   | Provides over-the-shore mobility manoeuvre and under the Joint Force approach environment in support of amphibious operations.  |
|  | LCM-B                 |             |   | Littoral Manoeuvre Vessel - Medium (LMV-M)<br>Shore-to-shore Manoeuvre<br>S.8710-1A Army Littoral Manoeuvre, IOC 2025, BOP 18-19  |
| Length 22.5m  | Beam 6.6m             | Height 4.5m | Length 20m Beam 5m Height 8m   | Provides independent shore-to-shore manoeuvre and support of the Joint Force approach and maritime environment. Also supports and provides additional support to shore mobility in the Australian Maritime Force. |
|  | LDH                   |             |  | Littoral Manoeuvre Vessel - Heavy (LMV-H)<br>Under-Sea Manoeuvre and Sustained<br>S.8710-2 Army Littoral Manoeuvre, IOC 2032, BOP 18-19   |
| Length 44.5m  | Beam 12.1m            | Height 10m  | Length 35m Beam 10m Height 10m   | Provides littoral manoeuvre and support of the Joint Force approach and maritime environment. Also supports and provides additional support to shore mobility in the Australian Maritime Force.                   |

\*The next-generation fleet images and dimensions are indicative only and do not represent any specific intention by the Commonwealth to acquire such platforms.

The Joint Force Approach to Littoral Operations provides commanders greater flexibility to distribute forces and effects across the spectrum of cooperation, competition and conflict. Littoral Operations enhance engagement and situational awareness in the region, and when required in conflict, impose multiple dilemmas on an adversary in more places, with more capabilities, more of the time.

These forces integrate platforms and joint effects to manoeuvre, and be sustained, through littoral and riverine environments. Littoral Operations adaptively disaggregate, distribute and then concentrate to target adversary weaknesses and deny the enemy the ability to strike, building force resilience.

Army maintainers will be expected to sustain the vessel for longer distances and greater duration, with limited ability for reach-back to support.

The TWRT foresee that Trade Transfers (TT) into this category will be initially from current qualified and trained members in the Fitter Armament or Mechanic Vehicle employment categories. However, the number of positions and location of where they will be employed has not been decided, waiting on Land Force Support System design guidance.

ECN 235 – Material Technician

Material Technician. The Metalsmith employment category will transition to Material Technician. The skill grade structure will change from nine skill grades to four. Material Technicians will develop professional mastery in distinct skill sets: fitting, advanced welding and advanced machining. With emerging technologies the category will be trained in advanced manufacture (includes additive manufacture and Computer Numerical Control (CNC) machining). Advanced machining will be

moved from the Fitter Armament trade in order to enable rapid prototyping, complex repair and manufacturing of tools, equipment and repair parts at the point of need. The Material Technician will also have an ab initio entry pathway where the Certificate III will be awarded through Army Technical and Traded Training at ASEME.

### **ECN 034 –Technician Assistant**

Technician Assistant. Army intends to create a Technician Assistant employment category, consisting of a single skill grade (Private to Sergeant). The employment category has been designed to enable mobilisation should Army require rapid expansion with rapid growth to assist qualified technicians. The Technician Assistant will support and enable the technical workforce by fulfilling non-technical roles within a maintenance organisation that have previously been conducted by qualified technicians that are taken away from their primary role.



In addition to the mobilisation driver, the Technician Assistant employment category is intended to be utilised by Army as part of its Gap Year program offerings. The expectation is that technical Gap Year members will experience various technical workplaces and different technical roles with a 12 month initial commitment then transfer to a RAEME ground ECN they have experienced in the Gap Year.

## End State

The Corps needs to adapt to strategic drivers. With less time for preparation, more tasks and less certainty about the type and sizes of tasks Land forces will need to enable the Joint Force to concurrently shape, deter and respond domestically, in the immediate region and globally. Land forces will fight on land, and from the land into other domains, and at all ranges. Therefore the RAEME Ground Trade employment categories must be able to provide Maintenance Engineering, Materiel Maintenance and recovery support to enable and sustain the Joint force across the Land domain now and in a future fight.

The Corps of RAEME need to both acknowledge and adapt to the rate of change that is occurring. Culturally there may be some friction, as change is never actively embraced within the military and change fatigue is wide spread across our workforce. However Government has asked Defence to be ready. Defence has developed a clear strategy for transformation and is providing adequate resources to equip and prepare the future force. Your role is to take advantage of the modernisation process and ensure that our Corps is prepared to support the Joint Force within combat operations against a peer enemy. If you have solutions speak up. Your chain of command, ASEME, Training Advisory Groups, Master Artificers and the wider Technical Support Network are actively seeking to improve your work conditions and implement your good ideas. Use them!



---

## Training for the Future

### MAJ Adrian Luke – OC CATW, ASEME (2021/22)

#### Recap

Before I get into things, I just want to do a quick recap from my article in the 2021 RAEME CFN Magazine (Training Differently). In that, article I outlined how the Future Ready Training System (FRTS) presented opportunities for not only ALTC but all training establishments to reflect on the way in which training has been delivered for well over 20 years. Essentially, the FRTS would enable us to utilise resources differently and treat known obstacles in our legacy training system. When I use the term blockage, I in no way mean this to be a derogatory term and these are simply resource constraints that our training system suffers. In order to achieve our Directed Training Requirements (DTR), CA signs up to releasing funding to enable Army to achieve training throughput across all Training Establishments (TE) or via external providers. So back to the blockages – this cash pays for resources such as instructors, facilities, travel and training aids etc.

As you may recall, throughout 2020/21, ASEME transitioned the majority of its specialist maintenance platform courses onto ADELE, for delivery under the Distributed Maintenance Training (DMT) model. DMT has enabled soldiers to enrol onto specialist courses (including the Sub 4 suite of courses) and complete their training while remaining in their home location. DMT has fulfilled a number of the FRTS tenants; however, one of the more favoured ones - which is to keep soldiers at home longer. Now I'll end my recap by mentioning that we analysed the M777 Howitzer maintenance course throughout Q3/4 of 2021 - where stakeholder engagement found that this course should be delivered under a hybrid DMT model. Analysis on a number of other courses came to similar conclusions, which are were implemented in 2022

#### Modifying DMT to suit the majority

Since the introduction of FRTS at ALTC, ASEME has been continually analysing how to deliver courses under the DMT model, and ensure we fully understand all the nuances and frictions that may impede a soldier from being platform-qualified in a suitable time frame. Ensuring that soldiers who have enrolled on one of our courses, actually completes the course, is clearly one of our highest priorities; however, as in many cases, there can be a number of factors that challenge our graduation numbers.

One thing that we have learned over the 'DMT' journey so far, is that it has delivered an alternate means in which we can deliver training for our soldiers. Like many projects or programs that are rolled out across Defence, one of the keys is to monitor the outputs or goals and we soon learned that our throughput was reducing across a number of platforms. As previously mentioned, we modified the M777 maintenance course to suit our learners and units. This 'hybridisation', then carried through with a number of our other courses.

#### Hybrid courses and Micro-sessions

Through a robust activity of seeking unit and individual feedback, it wasn't difficult to understand where ASEME and our dependencies were suffering friction which was impeding on course completion rates i.e. DTR. To the credit of ASEME course managers and instructors, some 'hard to complete' tasks were being agreed upon via the ASM network which would see students not attempt some tasks. These lists (specific to each platform) were promulgated in ADELE and course managers engaged with individuals to ensure that the more difficult and time consuming tasks, were essentially postponed until the student could attend a face to face or abbreviated session at

ASEME. The use of the term micro-session came into vogue with a need to separate this method from our previously run course sessions, which were all based on a specified number of training days. Micro-session training days vary, dependant on platform complexity; however, in most cases, the time students spend at ASEME has been significantly reduced with completion rates increasing throughout 2022.

One (internal) business rule we did not want to breach, was to continue to offer as much flexibility as possible to students conducting one of our courses. We were and remain completely cognisant that at times, individuals had other priorities such as work commitments, field or family. Essentially, flexibility is ASEME's means to accept that when students are not in our classrooms or workshops, then we effectively have little, if any control over how they manage their time i.e. course participation!

### **RCC / RPL changes**

Due to the majority of our specialist maintenance courses having their sessions extended to 12 months, some students would find themselves bounding two training years. That's fine, we simply needed to revise the way the way we reviewed a students' learning history. Now that all courses were being managed and delivered via ADELE, capturing this history is very simple and applying new methodology within a new training system was a no-brainer! Once our staff were aware of the requirements through a new SOP which outlined guidance to instructors, the process has become very streamlined and is as simple as providing ADELE evidence of completion on all Record of Attainments where students are only 'partially complete'. Students are then re-enrolled onto the next session in order to complete their training. If students or any of the CoC are having issues with RCC / RPL and re-enrolling back onto a course, please reach out to the individual course manager / instructor for resolution.

### **Training Governance**

Change is a natural process; however, with a major change such as DMT, ASEME is required to ensure our policy and processes are matched to the delivery of training. In such a change-rich environment, this can be problematic and a process may not be discovered as redundant or no longer suitable until the time it is required to leverage off such process implement it. To address this, we are quickly required to understand what we 'used' to do and what do we 'need' to do, to change in order to meet our delivery methodology under DMT. In support of our changes, you can rest assured that at every stage, our analysis was assisted by specialist personnel within the Army Education Centre (AEC), within HQ ALTC. AEC are acutely aware of the friction and in-turn are modifying their own SOP's to align with the numerous delivery methodologies within ALTC as a result of FRTS.

### **Looking ahead at ASEME with DMT**

I'll probably play it down a little; however, the initial couple of years of delivering and modifying DMT, has produced more than a few challenges for the broader maintenance community. Any rapidly introduced change will undoubtedly cause tension or confusion; however, the changes that were made in 2022 within ASEME to simplify delivery (for all involved) and course completion, will continue to be enhanced in 2023. Instructional staff within Career and Advanced Training Wing are largely unchanged this year, which will provide a very solid foundation for ASEME to continue to work with units and jointly produce the technicians Army requires to maintain our ever-growing fleet of more technical and capable platforms.

## Conclusion

Change management can be a difficult task at times! It requires a number of processes and activities to be achieved prior to the introduction of the change itself. Our people need to be brought along on the journey and messaging needs to be ongoing and at times, relentless! The introduction of DMT, while quite well publicised, was very much a paradigm shift away from how we have 'always' trained soldiers on specialist platforms. As we know, once the initial bugs are ironed out and people get used to the 'new' way, it just becomes business-as-usual. As I eluded to, some delivery methodology and process enhancements will continue to be modified to enhance DMT but for now, I encourage all affected personnel to reach out so ASEME can understand and address the issues.

I have handed the baton over to MAJ John Lodge for the next two years, where he and his team will continue to deliver world-leading training to our soldiers and technical workforce. If you would like to learn more about DMT or better understand how specialist training is delivered, please contact WO1 Neil Taylor (ASM CATW).

***Arte' et Marte'***

---

## ERP and SAP

You may have heard by now that Defence is replacing legacy software programs with one all-encompassing Enterprise Resource Program (ERP) and that SAP is the software that will be utilised to perform this function.

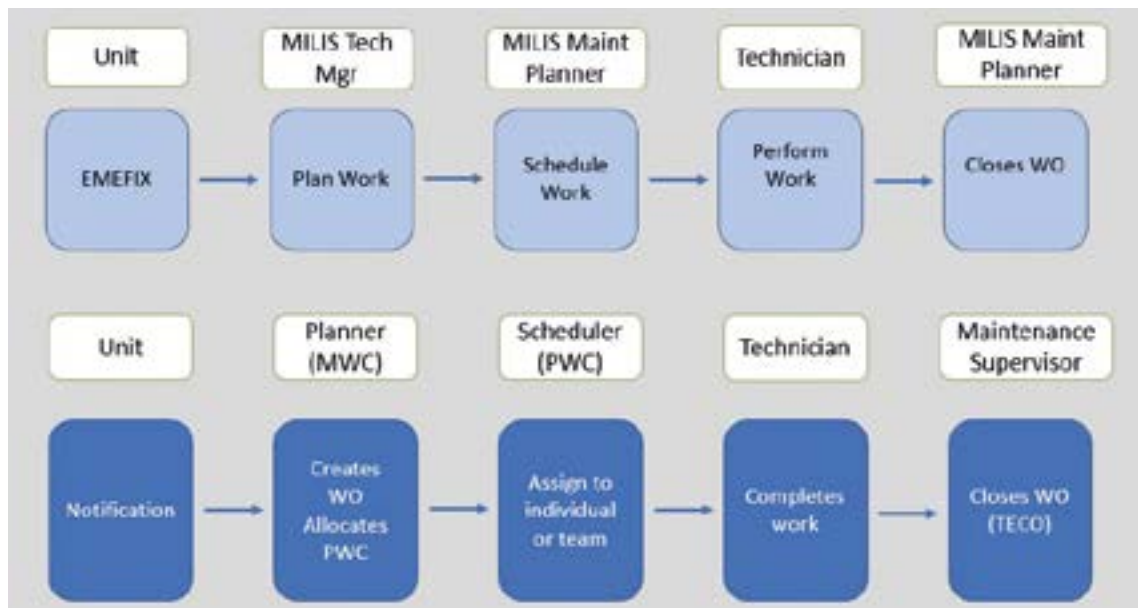
This is not a slap-dash project to replace MILIS and then be replaced by newer software again in a few years. It is a major program being delivered across Defence and over multiple tranches, by the Chief Information Officer Group (CIOG). The first tranche will concentrate on 'Supply and Land Maintenance' together with some enabling functionality in Finance, Procurement and HR. This will set a strong baseline for these other functions once they're migrated to the full-ERP functionality. As we transition into SAP ERP, there will be no PMKeyS, Roman or AIMS, until eventually the only program that you will be interacting with will be SAP.

As you can appreciate, there has been a substantial investment in this project and as this change affects everyone, the importance of training and data transformation has also been acknowledged and budget allocated accordingly. How we approach this will determine the ease of transition and if done well, the return on investment and benefits to us, will be seen early on.

That's not to say that the transition will be easy, there will be challenges and the program is asking for everyone's support. To put it into perspective, the Defence ERP program will affect all 16 Groups and Services across Defence. Therefore, it is likely that as we transition into a 'One-Defence' system, there will be allowances from each of the Groups and Services as we agree on one common lexicon, for example, in the vocabulary of the classification system. Secondly, SAP is a web of interconnected information and to maximise its effectiveness we will need to adopt new ways of working to maximise the efficiencies and other benefits of the ERP tool. And finally, SAP isn't just about maintenance and supply, there are links to finance, engineering, HR and multiple other downstream components. This means that in some cases there will be additional fields which require an input. Where possible, the system is being designed to auto-populate these fields, but it's important to recognise that not everything can be automated.

So whilst the road will be rocky at first, the program are undertaking a number of steps, including reviewing the lessons learnt from previous implementations, identifying impacts and developing strategies to minimise them and implementing Organisation Change Management (OCM) strategies, to support us throughout the implementation. This article, for example, is a small part of the communication plan and we'll be taking names of those that don't read it.

So what changes can you expect to see? In addition to the classification system and Technical Inspections mentioned above, you will also see a change to your current 'work-group' structures. In SAP, work groups are called "Work Centers" and they are centrally managed with similar structures in like Units, encouraging familiar work processes regardless of which Unit you are posted to. "Work Centers" are the key to effective maintenance management and provide a means to creating Maintenance relationships within the system, making it a simple process to backload to your 2nd and 3rd line support elements.



Another benefit of an integrated system is that Local Engineering Changes (EC) and material certification, will all be performed on the system, finally bridging the gap between engineering and maintenance. The EC workflow has been replicated in SAP along with the appropriate authorisations approving progression through “gates” (e.g. Design approver, EA). For those of you who are familiar with CMT-L, these gates will allow anyone with the appropriate authorisation, thus minimising the risk of delayed process progression in the event that one individual is unavailable to complete the task.

Speaking of bridging the gap with the integration of CMT-L, all the RPS and CES will be mastered in SAP. This will allow the selection of repair parts to be accessed directly from the equipment structure, which will also be linked to the Work Order. If you haven’t already guessed, this means that those parts will be the current material number (Stock Code), which I think we will all be grateful for.

More new SAP functionality which is relevant to us is an ‘operation status board’. This will show at a glance the technical and operational status of a Unit’s major equipment – defined by equipment type “Master Equipment Record (MER)”. The operation status will indicate if a platform is mission capable, not mission capable or partially mission capable, which will also indicate which part of the system is affected based on mobility, lethality, communications and survivability. This status board will primarily be used by the Ops cell to enable real time equipment availability to aid operational decisions. If required, the operational status board also includes a direct link to the ‘Work Order’ detail which provides further information on the maintenance condition of a platform. Whether this will be enough to stop phone calls to the workshop is yet to be seen, but there is hope.

This article highlights just a few of the changes you can expect to see with the introduction of Defence ERP. As the program progresses toward implementation, more detailed communications and training will be provided. In the meantime, if you have a thirst for knowledge, you can visit the Army ERP SharePoint page [Army ERP - Home \(sharepoint.com\)](http://Army ERP - Home (sharepoint.com)).



---

## Printing the Future – Advanced Manufacturing in Army

The 2021 RAEME Craftsman Magazine included an overview of the 101 FDWKSP Advanced Manufacturing (AM) Trial that occurred from July 2020 through June 2022. This article provides a brief overview of the entire trial conducted by 101 FDWKSP, and presents a model of AM within the Combat Brigades. The future of AM within the ADF is discussed, as it will impact the Corps going forward.

### Trial Overview

101 FDWKSP, 1 CSSB hosted Land Trial 029 Advanced Manufacturing which ran from July 2020 through to the end of June 2022.

The key achievements of the trial was:

- Incorporating a number of AM technologies into the FDWKSP
- Developing a dedicated AM section
- Producing parts in barracks and tactical field environments
- Use of the existing approval process for use of parts, and
- Fitment of AM produced parts onto Land Materiel.

### Evolution, not Revolution

Every VIP demonstration that has occurred throughout the two year trial has had two common occurrences. The first is an overwhelmingly positive response from senior leadership to the adoption of this technology within Defence, which demonstrates a reassuring enthusiasm to continue pushing forward.

The second is a question along the lines of ‘How did we authorise the use of printed parts on Army equipment?’. The answer is, in short, that we have used the Local Engineering Activity Decision Log (LEADL) as a tool to assess the level of risk in using a manufactured part, and then record its approval. This tool was in no way modified for use within the trial. It is a suitable method for approving the use of RAEME Workshop manufactured items on Land Materiel. RAEME CFN have been producing parts to solve problems for Army for 80 years, the only thing that has changed is that the tools we are using have been brought into the 21st century, and now includes CAD, CNC machining and metal 3D printing.

AM has the potential to revolutionise the supply chain by reducing stock holdings and turnaround times during periods of international crisis, but in RAEME WKSP terms, it's an evolution of the role that GE has always filled. Communicating this difference in future will go a long way to reducing some of the hesitations or misunderstandings of the role of RAEME within Army when adopting this technology.

### AM&F Sections

The concluding trial report for the AM trial within 101 FDWKSP recommends the implementation of AM technologies within all 3 ARA CSSBs, as well as a supporting training element at ASEME. The model for this replicates that used with the trial, with a dedicated Advanced Manufacturing and Fabrication (AM&F) section raised within GE PL of the FDWKSP Company. In summary the recommended structure is an 8 person section including a CPL, LCPL and 6 CFN who are dedicated to providing AM services to the Bde. The section role is twofold, the provision of a shortened supply chain for the supply of CL IX parts and supplemented with the design and production of bespoke items to solve problems within the Bde.

The list of equipment required to fill this role is extensive but in no way exhaustive of the almost unlimited possibilities offered by modern technology. The proposed section design includes a metal 3D printer, 3 (ideally up to 5) axis CNC milling machine, large bed waterjet cutter, plastic / resin printers, CAD (and supporting high power laptops), and some additional field deployable capabilities such as smaller more robust CNC machines.

The training requirements for the introduction of this new equipment are also extensive, requiring a determined update to some of the training offered at ASEME – during ab-initio trade training, or through dedicated career courses. Short term training requirements are likely to be required through civilian training options.



*101 FDWKSP AM&F Section deployed within the 1 CSSB BMA on Ex KOOLENDONG 21*

### **The Future of AM within Army**

Army AM capability has been reduced to SOAMC within SOCOMD with the end of Land Trial 029 in June 2022, who focus on the provision of bespoke parts more than the shortening of supply chains through the replication of OEM parts. The Advanced Manufacturing Optimisation Strategy produced by JLC supports the implantation of AM within the ADF, but has not laid out a plan for how this is to be achieved. Until a formal plan is built, approved, and financed, there is no foreseeable implementation which is a loss to future Army and RAEME CFN capability. The final report from this trial provides recommendations for the implementation of AM within Army and a methodology to achieve this.

RAEME has a vested interest in the implementation of AM and can be the driving force behind Army's adoption. This technology promises to be the next step in the evolution of GE tooling and represents a huge leap in the capability of a FDWKSP and its ability to support a Combat Bde. Additionally it enables further training of our CFN and presents challenges and opportunities well beyond our current suite of tooling.



## Hydrographic Systems Program Office – Army Marine

### WO2 Nathan Hoddy

With Defence's shift in focus to the amphibious realm, and the (re) raising of the Marine Technician trade there are exciting times in the future for Army Marine. For those of you out there who have yet to be blessed to operate in the marine environment, it's been a while since we've said g'day and shamelessly promoted Army Marine. We'd like to introduce the team from Hydrographic SPO – Army Marine, in sunny Cairns, and let you know what we have been up to the last couple of years.

### Who's who in the Zoo - 2023

We also farewell some members posting including Capt Vlad Khodakivskyy, Lt Mick Li and myself.



**3rd/Rear row:** MAJ Lorry Parrish, Mr Ken Arnold, and Mr Greg Fairs-Allen, **2nd row:** Mr Matt Kercher, CAPT Vlad Khodakivskyy, SGT Salesia 'Sisi' Osborne, **1st row:** WO1 Tim Costin, WO1 Jason Peterson, LT Yi 'Mick' Li, Mr Shaun Murray, **Laying on ground:** WO2 Nathan Hoddy, **Absentees:** Ms Steph Le, Ms Amelia Forster, Mr Ben Hennessy, Mr Sean Beven, Mr Mal Gardiner, Mr Phil McDonald, Mr Nigel Ellis, Mr Bill Bergquist, Mr Tony Harriden

### Moving House

Not literally. With the raising of the Naval Shipbuilding and Sustainment Group (NSSG), HSPO-AM has made the move over from CASG. At this stage, other than a new colour patch, it's still business as usual. Still here, still the only SPO in warm, sunny Cairns sustaining Land Materiel. Just saying.



## New Capabilities

With the updates to the Australian Emission Standards 2018, two-stroke OBMs, or at least the carby variants, are effectively dead. Whilst we can import select two-strokes under a waiver, you will have noticed the newer four-stroke outboards appearing at units. Naturally, with new technologies comes new problems. Heavier outboards, more electronic diagnostics, and new operator instructions to name a few. If you're fitting one to a craft for the first time, make sure you read the relevant EMELs, as there's a few things you'll need to be aware of. Hint, it rhymes with Scupper Modification. And don't even start about propeller guards. Have a read of SOVOs Vol 4. I'll wait. OK you got me, I won't wait, but you need to read them anyway, as there's more to it than you may think.

Our HSPO projects team have been flat out buying new toys (capabilities) too. The Regional Support Craft has been in operation with 51 FNQR in Thurs Island for the year, greatly enhancing the unit's ability over the old Noosa Cat. The three 300hp outboards alone are a bit of a step up from the twin 275s of the Cat.

## Regional Support Craft (RSC)



Another new addition to the Army Marine family is the Army Safety Watercraft. The introduction of this 7.75m long, towable by commercial 4x4 car, safety craft is the final nail in the coffin for the old Noosa Cats. Powered by two new 150hp Mercury four-stroke OBMs. This craft has that much buoyancy, it doesn't even need a life raft. It could be said it's unsinkable, but I'm certain there's an operator out there who could prove that wrong....but that's not a challenge!

## Army Safety Watercraft (ASW)



She's more than just a safety craft though, with the development of a new hydrographic survey station for the aft deck, so we can also say goodbye to the old Inshore Hydrographic Survey Vessels (IHSV).





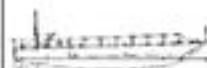



## Fond Farewells



Joining the Noosa Cat's, IHSVs, and two-stroke OBM's at the great boatyard in the sky is the one and only Air Cushioned Vehicle (ACV); AKA Hovercraft. Entering into service 1989, before many of you were born. It's had a long but fairly obscure career at the Proof and Experimental Establishment in Port Wakefield. Its last voyage is close.

## Future Capability

The future is just around the corner, and Army Marine is the place to be. With the LCM8 approaching compulsory retirement age, after having been introduced into service in 1967, all eyes are shifting seaward at the Army's ability to self-project forces "littoral'ly" through Project LAND8710. Since the handing over of our last Army Ship (the Landing Craft Heavy) to Navy in 1974, our focus has been on small boats (and throwing some out of perfectly good aircraft). The new Littoral Manoeuvre Vessels look to change all that. From working on engines bigger than a tanks, up to 440v electrical systems, and more plumbing than you'd want to see in a lifetime, I envy those up and coming Marine Engineers and what their future holds. Air-conditioned bunks? Sheer luxury.

| Legacy Fleet   |             |              | Next-generation Fleet  |   |
|--|-------------|--------------|--|---|
|  <div>Regional Patrol Craft</div> |             |              |  <div>Littoral Manoeuvre Vessel - Patrol (LMP-P)<br/>Keweenaw &amp; Chase Support<br/>(LSTN Army Littoral Manoeuvre - Chase Support, ROC 1902)</div>    |   |
| Length: 9.4m   | Beam: 2.88m | Height: 2.0m | Length: 15.9 m Beam: 3.8 Height: 5.0   | Enables rapid manoeuvre to flood and further performance for manoeuvring, patrolling or insertion of vehicles per strength distributed force elements. Also capable of beach and security tasks.                                |
|  <div>LARC-V</div>                |             |              |  <div>Littoral Manoeuvre Vessel - Wheeled All-Terrain (LVA-W)<br/>Over the shore Mobility<br/>(LSTN-18 Army Littoral Manoeuvre - Light, ROC 1906)</div> |   |
| Length: 10.7m  | Beam: 3m    | Height: 3.4m | Length: 10.7m Beam: 3m Height: 3.4m  | Provides over the shore mobility to transport and sustain the Joint Force in shore environments including landing and operations. Also supports the deployment of the Amphibious Beach Team.                                    |
|  <div>LCM8</div>                  |             |              |  <div>Littoral Manoeuvre Vessel - Medium (LVA-M)<br/>Shore to shore Manoeuvre<br/>(LSTN-16 Army Littoral Manoeuvre - Medium, ROC 2004)</div>            |   |
| Length: 22.5m  | Beam: 6.4m  | Height: 4.5m | Length: 30m Beam: 5m Height: 6m  | Provides independent shore to shore mobility to sustain manoeuvre and support of the Joint Force in shore and flying environments. Also supports and provides additional and to shore security to the forward Amphibious Force. |
|  <div>LCM</div>                   |             |              |  <div>Littoral Manoeuvre Vessel - Heavy (LVA-H)<br/>Offshore Manoeuvre and Sustainment<br/>(LSTN-14 Army Littoral Manoeuvre - Medium, ROC 2009)</div>  |   |
| Length: 44.5m  | Beam: 10.1m | Height: 16m  | Length: 76m Beam: 10m Height: 16m  | Enables shore to shore projection and sustainment of the Joint Force in shore and flying environments. Also provides off shore groupings of vehicles and armoured vehicles.   |



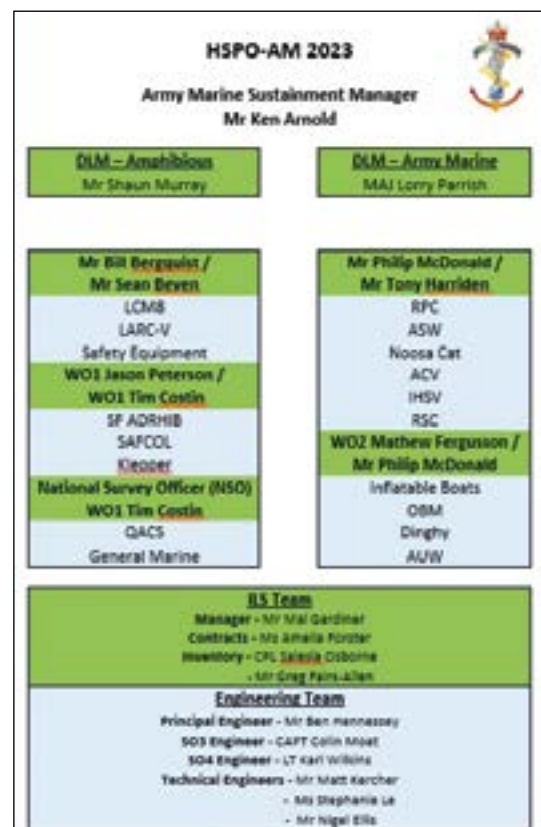
## But what about the day to day in HSPO-AM?



Enough of the shiny toys and promises of the future. Other than travelling around the country to look at waterfalls (and boats), run the occasional trial, and drink coffee on the Esplanade, what do we actually do at HSPO-AM? Contrary to popular belief, it isn't just an office full of old, and ex, Warrant Officers, sitting at a computer and two-finger typing EMEIs. Sure, that does happen (much to the entertainment of the younger people in the office), but it's not how most of us spend our days. I could throw a bunch of stats at you about RODUMs closed, EMEI/RPS/CES raised & updated or Engineering Changes completed, but this is the Crafty mag not the Officer mag so you probably aren't interested in that. Having posted in as the RAEME office junior, I have found it a place where you can effect real change, and not in the throw away buzz word kind of way. Most of my days over the last two

years, have been spent talking with our craft Marine Engineers on the ground. Answering their questions, helping them solve their real-time problems, and occasionally translating RODUMs into English and then into a language our Mechanical Engineers can understand. That and putting in to practice all that technical investigation stuff they went on (and on) about on Sub 4s. Sure, that does often result in making and updating EMEI, and other computer stuff, but the way I see it, if we don't give you what you need to do your job, we haven't done ours. From day one in the office there was a refreshing passion, from the top down, for all things marine and trying to make the Crafty's job's easier. There's been a big focus recently on 'deep sining' outdated procedures and practices, and getting on board with emerging industry practices. For those of you currently in marine, I know you've been hearing there's new things on the horizon for a few years now, but hold fast, you can almost make out new lands on the horizon. For those of you yet to make the leap seaward, just remember, you can't dig pits in the ocean. Smooth seas and clear skies. Arte et Marte.

P.S. Our latest Army Marine information such as personnel to contact, the Watercraft Quality Assurance & Configuration Survey Schedule and other relevant site links can be accessed through our HSPO – Army Marine website: <http://collab.defence.gov.au/CASG/Home/MSD/HSPO/SitePages/ArmyMarine.aspx>



---

## Queen Elizabeth II

It would be remiss of us as a Corps not to acknowledge the passing of Her Royal Highness Queen Elizabeth the II in 2022. The only Monarch the great majority of us would have known. This extraordinary woman who dedicated her life to her role, serving others.

Showing a determination that she displayed throughout her life, the then Princess Elizabeth insisted on doing her part during World War Two. As such, when she turned 18 in 1944, she insisted on joining the British Army, in the Auxiliary Territorial Service. Princess Elizabeth trained as a truck driver and mechanic. It was said that she was a proficient mechanic who could analyse and rectify faults in stubborn engines, replace wheels and, drive Bedford trucks over terrain that may have alarmed some men.

To this day, she is the only female member of the royal family to have served in the Army. There aren't many leaders in the world today that would have shown this sort of commitment to their country and people.

Although her husband Phillip may have been the Colonel-in-Chief of RAEME. It must also be acknowledged that Queen Elizabeth II should be an honorary member of REME/RAEME for her service during World War Two.

RIP your Majesty. You will be missed.



*U.K. circa 1945 — Princess Elizabeth, future queen Elizabeth II of England, learning how to change a car wheel as an auxiliary-officer of the English Army. Getty Images | Roger Viollet*

---

## The 17 WO1 Recovery Mechanics

The origins of Recovery are sketchy at best, not unlike the characters who make up the trade. British Warrant Officer Class Two Ken Corrigan-Houston started teaching Recovery based on the UK Army principles in Ingleburn prior to relocating to Bandiana. Recovery Mechanics were initially ECN 749 before changing in 1968 to ECN 226. WO2 Alfie Westland was the first OIC Recovery Platoon at RTC with SGT Sandy Toccock on staff. Since this time there have only been 17 ARA Recovery Mechanics who have attained the rank of Warrant Officer Class One in a trade position ECN 226. There have been Recovery Mechanics who have progressed through the ranks and attained WO1 in other positions such as ARES and Regimental Stream as well as some who have crossed to the dark side and Commissioned. This article and Honour Roll recognises the WO1 Recovery Mechanic posted to either instructional position as OIC Recovery Platoon or Senior Technical Advisor in trade. Reg Wildermuth OAM was the first Recovery Mechanic to promote and hold a position as WO1 in 1988 as OIC Recovery and is regarded as the man largely responsible for overseeing the development of the Basic Recovery Course (BRC) and Subject 4 CPL course training continuum.

### The ARA Honour board reads in date WO1 attained;

- |                       |                   |
|-----------------------|-------------------|
| 1. Reg Wildermuth OAM | 13. Terry Jones   |
| 2. Brian Tingwell     | 14. Geoff Currie  |
| 3. Peter Sandilands   | 15. Peter Marron  |
| 4. Michael Shanahan   | 16. Ken Roberts   |
| 5. Wayne Luck CSC     | 17. Mark Ingleton |
| 6. Peter Yates        |                   |
| 7. Ian Spargo         |                   |
| 8. Glenn Huckel       |                   |
| 9. Dean Austin        |                   |
| 10. Michael Jack      |                   |
| 11. Warren Elliott    |                   |
| 12. Tony Venables     |                   |

### ARES and Regimental WO1;

1. Phil Blakley
2. Shane Gallagher
3. Rick Colefax
4. Geoff Lowe
5. Peter Gray

### No 1 WO1 Reg Wildermuth OAM



WO1 Reg Wildermuth OAM left school at the age of 14 to work with his father droving cattle in the Nundah area, this was before it become a suburb of Brisbane. Reg enlisted into the Regular Army in May 1958 after he experienced a taste of Army life being called up for three months National Service Training in 1953 at the age of 18. During this time, Reg was trained as a Recovery Mechanic on the WW2 vintage Chevrolet Blitz Wrecker. After enlistment, Reg continued training as a Recovery Mechanic and was posted to the following units;

Nth Comd Workshop, 4 Fd Regt, 1 Armd Regt, 4/19 PWLH, 1 Mdm Workshop, 2 Sig Regt, HQ CRAEME 3 Div, 301 Fd Workshop, RAEME Trg Centre; PSD AAS (L) -UK/Germany, Tech Service Unit, 3 EME Svc Unit.

Reg is widely regarded as the father of Recovery Training having spent considerable time developing the Basic Recovery Course and the Subj 4 or what was known as the Advanced



Recovery Mechanic Course. All up Reg spent 19 years in Bandiana and just over 37 years' service in total. For his dedicated service, Reg was awarded the Order of Australia Medal (OAM) in 1987.

## **No 2 WO1 Brian Tingwell**

WO1 Brian Tingwell was born in Melbourne on 12th of July 1937. Brian's father was Manager of a brickyard in suburban Melbourne and Brian learnt to drive a variety of vehicles in the yards at a young age.



His father had contacts in the AUTO trade and was able to get Brian an apprenticeship in the Auto Grill Trade – a trade where cars were fully rebuilt, modified and upgraded including upholstery, trim, paint & mechanics. Brian joined the Army in 1956 as a 19 year old. He was seconded to the ARMY with several other young men from their suburb – He says he “had no choice” to do a 2 year stint. Given his skills Brian became a driver for a period and moved to the ARES in 1958. When in the ARES he was identified as having his AUTO Trade and with his driving history he was convinced to re-join the Regular Army as a Recovery Mechanic.

Brian served in Currumburra, 3 x postings to New Guinea, Enoggera, Melbourne Workshop Company, Vietnam, Victoria Barracks (St Kilda Road Melbourne) and RAEME Training Centre (RTC). Brian and Reg Wildermuth were both at RTC and when Reg was promoted, Brian was next in line and followed REG to WO1. He was promoted WO1 in 1984 and discharged in 1993 after 37 years' service.

Brian considers his career highlights to include his service in Vietnam, His involvement in the evolution of vehicle types from Studebaker, Twin Boom Wreckers, Internationals and Mack trucks. He enjoyed all the courses he participated in whether it be as a student or as an instructor.

Brian believes his prolonged time in Recovery was the “Best Job” and was grateful for the opportunities his trade gave him across all aspects of overseas service and in country. He highly recommends the trade.

## **No 3 WO1 Peter Sandilands**



Peter Sandilands was born at Mount Barker WA, 05 Oct 1946 and moved to Tasmania at an early age. Schooling in Tassie before completing final year of High School at Liverpool NSW.

Sandy enlisted in the Citizens military Force (CMF) in Mar 64 at 7 Field Regt LAD. He transferred 12 months later to Recovery Platoon, 103 Infantry Wksp which later became 103 Fd Wksp. There Sandy completed a Recovery Drivers course (CMF) in 1965 and a Basic recovery Course (CMF) in mid-1966 and along the way was promoted to SGT. Sandy took reduction in rank to CPL to take a posting to 8 Mdm Regt (later 8/12 Mdm Regt) in 1971 as CMF fulltime duty. Completing an ARA recovery course in Sept 1971, he transferred to ARA in June 1972, where he posted to the following units;

1975 - 2 Cav Regt; 1977 Perth Wksp Coy; 1979 Recovery Section (RTC) SGT; 1981 102 Fd Wksp; 1984 Recovery sect REME, Bordon UK; 1985 FRG 33 of 5 Armoured Wksp, Soest West

Germany; 1986 1 Armd Regt Puckapunyal promoted to WO2; 1988 Recovery Section (RTC); 1992 Maintenance Engineering Agency (MEA) Melbourne promoted to WO1; 1996 Recovery Platoon ALTC (Detached to MEA until end of 96 to complete MRV project and user evaluation); 2000 ALTC and discharge Oct 2001.

Sandy lists his career highlights being posted to Europe and the MRV project. Also being involved in the evolution from Kenworth, Ward la France Heavy Wreckers and Diamond T's to the Mack Wrecker. The change from the early platforms to the current range of Recovery Vehicles is remarkable. The wreckers have gone from being mechanically operated and somewhat agricultural in design to fully hydraulic and electronically operated. It seems as though an additional skill set is now required, something an ageing Ex Recovery Mechanic has trouble getting his head around. The Recovery Trade is arguably the best and most important trades in Army it is a Force Multiplier and privilege to be part of.



#### **No 4 WO1 Mick Shanahan**

WO1 Mick Shanahan, born 22 May 1950 in Sydney NSW. Raised in the suburb of Marrickville, left school 1965 and commenced work. After previous service direct entry into ARA 17 Oct 1972 allocated to RAEME as a Storeman Tech. Not my first choice, however a lucky one. During 1976 applied for trade transfer to Mechanic Recovery and attended 1/77 Basic Recovery Course on completion posted to 1st Armoured Regiment 77-79, 8/12th Medium Regiment 80-81, 22 Construction Squadron in 82, Armoured Centre 83-84, 2nd Cavalry Regiment 85-87, Armoured Centre 87-88, 1st Armoured Regiment 88-89, 101 Field Workshop 90-92, RAEME Training Centre 92-96, Directorate Electrical Mechanical Engineers 97-98, Maintenance Engineering

Agency 98-99, Army Logistic Training Centre 00-02, Headquarters, Force Support Group 03. In Oct 03 took early retirement.

Career highlights ECN 226. Assisting with the drafting of the non RAAC crew commander's course. My posting to RAAC units. The commencement of the HRV upgrade. Working on the Introduction into Service of the MRV. Finally seeing the ECN226 pay case completed in 02. Alignment of the ARA and GRES 226 course so both elements receive the same training.

The Army is a wondrous entity, when I started out a lot of the equipment was of WW2 vintage. That seems to be no longer the case as new equipment seems to appear regularly. When the HRV process started in 1998 MAN offered a vehicle similar to the L121. The HRV project was a minor one so it was make and mend. Now you have maybe the best vehicles there is to offer. Make the most of your opportunities, they come rarely.





### No 5 WO1 Wayne Luck CSC

WO1 Wayne Luck CSC was born on the 12 June 1955 in Ipswich Queensland. My earliest memory was running around on my parent's farm where we grew small crops, milked cows by hand and provided timber to the local saw mill in Laidley. My school years were uneventful until High School where I joined the High School, Army Cadets. While in my junior year at High School, I applied to attend Balcombe as an Army apprentice but alas was unsuccessful, so on leaving school I joined the CMF on my 17th birthday. I remained in the CMF from June 71 until Oct 74 where I discharged to join the ARA. After basic training at Kapooka, I attended initial employment training at the School of Artillery Training at North Head Manly as a Corps enlistee.

What happened from here on in is essentially listed below in this short version of my career, however, to say that the Service was my life is an understatement. I lived for every minute of it and would do it all again just the same way. My career started with the Cadet Corps when I was 15 years old in 1968 and ended in 1998 as a RAEME Warrant Officer Class One in the ARA.

Postings: 1974 – Enlist Brisbane; 1975 – School of Artillery; 1975 – 1 Fld Regt RAA; 1979 – 4 Cav Regt; 81 – 3/4 Cav Regt; 1986 – RAEME Trg Centre; 1990 – 106 Fld Wksp; 1993 – 6 BASB; 1995 – MEA; 1998 – Sth Qld Log Group and discharge Brisbane 1998

It is worthy of mention WO1 Wayne Luck was instrumental in rewriting the Basic Recovery Course and Subject 4 CPL course, this set the conditions for training with amendments through to today.



### No 6 WO1 Peter Yates

WO1 Peter Yates was born 28 January 1962 in Roma QLD. Peter lived in Yuleba, Qld, from where he enlisted into the ARA on 18 Apr 1979. After completing recruit training at Kapooka and initial employment training as a driver at Puckapunyal, took up his first posting as a RAEME driver at 20 Div ESS at Enoggera.

*2/80 BRC*

After completing the 2/80 Basic Recovery Course, returned back

to 20 Div ESS. Postings included from 1981 - 4 Cav Regt changing to 3/4 Cav Regt; 1984 - 1st Armd Regt (Cpl); 1987 - 102 Fd Wksp; 1990 - 101 Fd Wksp (Sgt); 1992 - RAEME Trg Centre; 1994 - 1 Armd Regt (WO2); 1997 - 7 BASB/7CSSB; 2001 - DMO (WO1); discharged 2002. Re-enlisted 2002 posted to ALTC (WO2), 2003 - HQ LSF (WO1); 2004 - ALTC. discharged 2007.

Career highlights: On reflection, I enjoyed my whole career in the Army, as a Recovery Mechanic. For me the highlights were, opportunity to go the England and Europe in 1986 with 1 Armd Regt, deployed on Op Warden and as OIC Recovery Platoon at ALTC. My greatest satisfaction was an instructor at RAEME Trg Centre/ ALTC, seeing the development of basic recovery trainees through to being leaders within our trade.

Finally, take the opportunities you can whilst in the trade as a recovery mechanic, particularly the opportunities to develop new skills and qualifications. I have been fortunate, that from the skills I had developed during my service in the ADF to have a second career in workplace health and safety.

### No 7 WO1 Ian Spargo

WO1 Ian Spargo enlisted Sep 1977 - Jan 1982: Citizens Military Force/Army Reserve. 3



Communication Zone Recovery Platoon, 3 Electrical Mechanical Engineers Services Unit. CFN & CPL, Recovery Mechanic.

1982 1 Recruit Training Battalion; 1982 21 Construction Squadron Workshops, CFN, Recovery Mechanic; Jan 1984 101 Field Workshops, CPL; Jan 1988 2/14 Light Horse Regiment Queensland Mounted Infantry, CPL/SGT, Jan 1989 RAEME Training Centre; Jan 1992 5/7 Royal Australian Regiment; Jan 1996 ALTC, WO2; Jan 1997 3 Recovery Company; Jan 1999 ALTC; Jan 2002 Headquarters Logistic Support Force, WO1; Jan 2003 ALTC.

Jan 2006 – May 2018: Army Reserve, Army Headquarters, Warrant Officer Class One, Technical Data Analyst.



### No 8 WO1 Glenn Huckel

WO1 Glenn Huckel enlisted in 1978 into the Army Reserve and transferred to the ARA in 1980.

Posting history: 1978 17 RNSWR, 1979 3 RNSWR, 1980 18 TPT SQN, 1984 102 Fd Wksp, 1987 1st Armd Regt, 1992 1 RTB, 1995 RTC, 1999 1 Armd Regt, 2001 7 CSSB, 2002 DMO, 2008 ASEME, 2012 ASEME transfer from ARA to AR.

Glenn was instrumental in the development and rebuild of the Mack HRV Twin Boom to the hydraulic over lift Miller system and the protected cabs for the deployed assets. Since leaving the ARA, Glenn has been a driving force in the ARES training space. Glenn's passion for the trade and a good chat is widely known.

### No 9 WO1 Dean Austin



WO1 Dean Austin was born 4 Jan 1960 in Thebarton Sth Aust, completed schooling in Adelaide and Canberra in 1977. Started in the CMF at 3 RNSWR Canberra around February 1977, then enlisted into the ARA 6 Mar 79. After completing Recruit training was designated to the Corp of RAEME and started doing the following steps of becoming a Recovery Mechanic. After completing

the Drivers course in November 1979 at Puckapunyal was posted to 101 Fd Wksp in December 1979. I attended 1/80 Basic Recovery Course and on completion was returned to unit where I stayed till July 1983 and in that time was promoted to LCPL in Jan 1981. Other postings included:

5/7 RAR (Holsworthy) - 1983 on promotion to CPL, 3 Base Wksp Bn - 1986, 1st Armd Regt - 1987, School of Armour - 1991 on promotion to SGT, 106 Fd Wksp 6 BASB - 1993, 2/14 LHR - 1994, South Qld Log Group - 1997, 5/7 RAR (Darwin) - 1999, DNSDC - 2001, ASLO South Bandiana - 2002 on promotion to WO2, 106 Fd Wksp 7 CSSB - 2004, 17 Bde Randwick - 2006 on promotion to WO1 and finally DMO in Sustainment - 2008 to discharge 2012.

Highlights include doing the work divers course and becoming a diving supervising officer (DSO), during Sub 4 CPL we did a 110t Dragline recovery in Albury which used a lot of resources, teaching our trade at the school, becoming a WO1 and working at DMO. Also appointment of PMC SGTs mess whilst at DMO in 2010. I have been lucky to enjoy all my posting and have made some lifelong friends. My deployments included Op Warden and Op Catalyst.

Recovery is a great and versatile trade and I have had great memories of the different tasks I have performed. I recommend that future generations grasp as many courses pertaining to the trade. I assure you the rewards are substantial in the future.

### No 10 WO1 Michael Jack



WO1 Michael Jack (Jacko) was born 02 Feb 1962 in Melbourne VIC, He grew up in Ulverstone TAS and completed school in 1978. Jacko enlisted into the ARA on 9 April 1979. After completing recruit training at Kapooka, his initial employment training as a rifleman infantry was undertaken in Townsville at 2/4 Royal Australian Regiment. First posting was Bravo Company as rifleman, then moved to Support Company as

a Pioneer and then to Admin Company as a Driver. Following completion of 1/86 Basic Recovery Course and Corp transfer, Jacko was posted to;

102 Fd Wksp, Townsville from 1986, 1st Armoured Regt Puckapunyal 1989, Headquarters 26 Transport Squadron Puckapunyal 1990, Brisbane Log Group/Spt Area Wksp Battalion/to Brisbane Log Battalion 1992, DNSDC Sydney 1997, 2 Cav Regt Darwin 2000, 1 CSSB Darwin 2001, 3 CSSB Townsville 2004, ALTC Bandiana 2007, Headquarters 17 CSSB 2008, discharged 20th April 2009,

My career highlights, working in 2/4 RAR was a great experience (deployed to Butterworth in Malaysia), trade transferred to become a Recovery mechanic and with that I found that in most of my postings I was my own boss. 1 deployment to Timor with 3 CSSB. Along the way I met my wife Kerry and we have two grown children Gabrielle and Cameron. Neither have followed me into the Military life which I have loved.





### No 11 WO1 Warren Elliott

WO1 Warren Elliott - born 16 Jan 1958 in Nambour QLD, and enlisted into the ARA on 6 Jul 1979. After completing recruit training at Kapooka and Initial Employment training at Infantry Centre, Singleton, posted to 6 RAR, at Enoggera. After completing the 1/85 Basic Recovery Course postings included; 5/7RAR Holsworthy 85, 2/3 FER Townsville 88, 1 ARMD REGT Puckapunyal 89, 113 FD WKSP Perth 92, School of Armour Puckapunyal 93, 1 ARMD REGT Darwin 97, 3 RECOV COY Korumburra 99, VTW RECOV PL Nth Bandiana 02, Dev GP ALTC Bonegilla 05, Queenscliff 08, 17 BDE Randwick 09, CASG Melbourne 14, 2 FSB (ASM) Dandenong 18, DFSL Laverton 22 - Current. SERCAT 5 in JUL 2018, SERCAT 3 in MAR 22

Career highlights are posting to RAEME Trade Gp involved in the development of the Sub 4 continuum and Trade Pay case, then SCMA. Instructing on Recovery and the opportunity to deploy on Op. Always enjoyed operating any of the equipment, no matter what version or where it was. Seeing the transition from the Inter Twin Boom and M816 era, Mack Twin Boom, Mack and MRV, through to the L121 MAN trucks, has been amazing.

Recovery is a unique capability to Army and is increasingly coming to the fore with the complexity and diversity of equipment injected into a fluid battlespace. Being a trade that projects into the battlespace it will always require a high level of military skills, and commitment to complete the task. I believe this gives it that exceptional standing in the RAEME sphere.

Take every opportunity to expand your knowledge and experience in both Trade and Military, to enhance both yourself and your contribution to the workplace.



### No 12 WO1 Tony Venables

WO1 Tony Venables enlisted in the Army in February 1991 as a Direct Unit Recruit allocated to Royal Australian Armoured Corps (RAAC) – 2nd Cavalry Regiment. After completing nearly five years as a TPR in RAAC and with my previous experience as a Panel Beater in civilian life, I successfully applied for a Corps transfer to the Royal Australian Electrical and Mechanical Engineers (RAEME) as a Recovery Mechanic.

At the completion of training at RAEME Training Centre, I was posted to the 1 Sig Regt Wksp in 1995. Between 1995 and 2010, I was employed in numerous trade, instructional and Operations Warrant Officer positions across the 3rd and 7th Brigades and the Army Logistic Training Centre (ALTC). I was

promoted to WO1 In 2011 and posted back to ALTC as the Officer in Charge of Recovery Training and what I consider as the highlight of my trade career. In 2013, I was posted to the Directorate of Soldier Career Management – Army (DSCM-A) as the Career Advisor (CA) for Recovery Mechanics and Fitter Armourers. I was the first Recovery Mechanic to be employed as a CA. I then spent the next two years at Australian Army Cadets developing and delivering the new five year training curriculum which replaced the old 18 month program. My Last appointment as a WO1 was back into DSCM-A, the Senior Warrant Officer Management Section (SWOMS), as the CA to the Tier-A Technical and Trade portfolio.

In January 2000, I was deployed to East Timor as the commander of the Medium Recovery Vehicle team during the new vehicles introduction into service for Army whilst attached to 1st Combat Service Support Team in Dillili. I deployed on Operation SLIPPER as the Company Sergeant Major (CSM) for the Force Level Logistic Asset – Baghdad in 2008. As a Corporal whilst posted to 7 Combat Service Support Battalion, I was awarded a Soldiers Medallion for my work as the Acting Warrant Officer Recovery. Commissioned to MAJ 2021.

Words of advice: Enjoy what you do and take pride in doing it. Don't cut corners or safety (yes you - S4 CPL RECOV). Mentoring is a valuable tool that is required both up and down the chain and finally look outside the box both in trade and out of trade.



### **No 13 WO1 Terry Jones**

WO1 Terry Jones was born on 02 Mar 1970 in Woomera SA; he left school in 1987 to enlist into the ARA on 25 Aug 1987. After completing Recruit training at Kapooka and initial employment training as a Storeman Technical General (RAEME) in Bandiana, took up his first posting as a Storeman in the Workshop at Admin Coy, 8/9 RAR in Enoggera Barracks.

After completing the 1/92 Basic Recovery Course was posted to 2 Cav Regt from 1992 to 95; 1 Armoured Regiment from 1995; 1 Joint Support Unit from 1998; 7th Brigade Administrative Support Battalion Enoggera from 2001; Army School of Logistic Operations, South Bandiana from 2003; Recovery Platoon - Vehicle Training Wing, North Bandiana from 2005; 1 Armoured Regiment from 2008; Soldier Career Management Agency, Queenscliff in 2011; Defence Material Organisation from 2012; 17 Combat Service Support Brigade from 2014; Recovery Platoon, Career and Advanced Training Wing, North Bandiana from 2018; Workforce & Training Group, ALTC, Latchford Barracks from 2021 to Current.

Career highlights are, being selected for EX Long Look 2002 to 1 Battalion REME, Osnabruck, Germany, which included conducting an honour guard for Princess Anne. A posting as the OIC Recovery at the school, seeing the training transition from the legacy HRV and MRV to the L121 45M HRV and 42M MRV. Finally the opportunity to deploy on Op Tamar, Warden and Accordion. My advice, never knock back an opportunity. As a Recy Mech I deployed to Rwanda in an Evacuation Role (ambulance) all because I had done a Combat First Aid Course (Patrol Medic). Ended up pretty much working as a medic for the 6 month deployment.





#### No 14 WO1 Geoff Currie

WO1 Geoff Currie enlisted into the ARA 05 May 1982 as a RAINF Rifleman, posted to 2/4 RAR prior to changing over to RAEME as a Recovery Mechanic on the 2/88 BRC.

RAEME Postings: 102 Fd Wksp, 1 Armd Regt, 2 Cav Regt, 3 BASB, 7 CSSB, SLG-P, SOARMD, 3 CSSB, 1 CSSB, ASEME

Geoff discharged in 2013 and is settled in Townsville.

#### No 15 WO1 Peter Marron



WO1 Peter Marron was raised on a sheep and cattle station 14 miles (that's 22.4km for the young ones!) away from a small town called Hawker, on the scenic rim of the Flinders Rangers, South Australia. I enlisted into the Australian Defence Force on the 11 February 1986 at the age of 17. Following Recruit and IET training, my first posting was 101 Field Battery, 1st Field Regiment, RAA Enoggera,

Brisbane, as a Driver Artillery from July 1986 to December 1991. I marched into 107 Fd Bty, 4th Fd Regt RAA, on promotion to BDR in 1992. After completing 10 years in Artillery, a self-assessment of my future within Army lead to a Corps transfer to RAEME as a Recovery Mechanic.

I completed the 1/96 Basic Recovery Course and returned to Townsville, postings to followed: 1996 5 Avn Regt; 1999 1 CSSB; 2004 3CSSB; 2006 B SQN 3/4 Cav Regt; 2008 3CSSB; 2009 7 CSSB. Whilst at 7 CSSB, I performed multiple roles including WORM, OPSWO, TWO and CSM.

On promotion to WO1 in 2014 I was posted to ASEME as the OIC Recovery Platoon, 2018 posted to Employment Category and Training Design Group. 2021 Senior Technical Adviser LRTE at Capability Acquisition Sustainment Group.

I have had the following Deployments during my 35 years of service: Op LAGOON Bougainville; Op TANAGER - East Timor; Op RELEX (Border Protection); Op CITADEL - Timor Leste; Op ASTUTE - Timor Leste; Op SLIPPER - Afghanistan.

During my career I have been fortunate to have had a wide range of challenging and rewarding postings. I have had the opportunity to work with members of both Regular and Army Reserve, Public Servants, Defence contractors and service personnel of other nations. There are two career highlights which stand out as achievements within my time. The first being the deployment to Afghanistan as a CSM. The second and the most rewarding, has been the posting as the OIC Recovery which has provided me the opportunity to share my knowledge and experience to

the next generation of recovery mechanics undertaking initial trade training, along with providing systems capability advice to the L121 PH3B Recovery Platforms design and implementation.

My advice is to remember that the tools you have been provided to do your chosen profession, is not the means to an end; it is your learning and capabilities as the Recovery Mechanic which is the real advancement to our trade!



### No 16 WO1 Ken Roberts

WO1 Ken Roberts was born 15 Aug 1966 in St George QLD, raised and completed school in 1983, enlisted in Brisbane into the ARA on 15 Apr 1986. After completing Recruit training at Kapooka and initial employment training as a Driver at Puckapunyal, took up first posting as a Driver Artillery to 101 Fd Bty, the 1st Field Regiment at Enoggera.

After completing the 2/89 BRC was posted to 5th Base Wksp in 1990; 1994 B Sqn 3/4 Cav Regt; 1997 3rd Combat Engineer Regiment; 2000 3rd Brigade Administrative Support Battalion; 2002 5/7 RAR; 2003 ASEME VTW; 2004 ASLO, 2006 3rd Combat Service Support Battalion; 2008 B Sqn 3/4 Cav Regt; 2009 3 CSSB; 2010 1 CSSB, 2013 3 CSSB; 2015 2 Cav Regt, 2018 Capability Acquisition Sustainment Group (CASG), 2021 CASG Armoured Vehicle Division.

Career highlights are posting to B Sqn ¾ Cav, Instructing on the BRC and the opportunity to deploy on Op Warden (INTERFET East Timor), OP Tanager (UNTAET East Timor), OP Slipper (MRTF2 Afghanistan) and OP Okra (TAJI VI Iraq). Seeing the transition from the Twin Boom, Mack Wrecker and M816 through to the new L121 MAN trucks, and most recently being involved in the design of the new Boxer Recovery Variant.

Recovery is a force multiplier responsible for putting the Work into Workshops. My advice to next generation Recovery Mechanic, don't waste an opportunity to upskill and do courses early that will set you up at the backend of your careers.

### No 17 WO1 Mark Ingleton



WO1 Mark Ingleton was born in Toowoomba 11 July 1968. Completed school in 1984 and took up a Butchers' apprenticeship. The decision was made to join the Army in 2002 and on 19 November 2002 commenced recruit training at Kapooka. Initial trade training was completed at The School of Recovery, Bandiana, Nov 2003.

First Posting was to 1 Aviation Regiment at Oakey and moved with the Regiment to Darwin in 2005. This was followed by a postings to B Sqn 3/4 Cav Regt, 5 RAR, 1 CSSB, ALTC, 3 CSSB and then back to ALTC in 2021.

Promoted to LCPL 2005, CPL 2005, SGT 2010, WO2 2014, and WO1 2021. Operational Deployments: OP ASTUTE – East Timor and OP SLIPPER – Afghanistan.

---

## Recovery Mechanic Memorial

The Recovery Mechanic's Memorial at Recovery Platoon North Bandiana was established by the Recovery Platoon staff 2021. The Recovery Platoon Staff were as follows:

WO1 Mark Ingleton OIC

WO1 Glenn Huckel

WO2 Stephen Groth

WO2 Jachir O'Brien

SGT Kane Jones

SGT Andrew Reid

SGT John Cottrell and

CPL Ricky Lowe.



*Some of the team at a working bee*

The driving force of the establishment of the Memorial was due to a fatal vehicle (45M Recovery Crew) accident in the High Range Training Area 30 Aug 2021. The Memorial is dedicated to all known Recovery Mechanic's that have passed whilst in service.

The memorial comprises a road base landing (Plinth) which is positioned a M816 Heavy Wrecker. The M816 was located at Puckapunyal School of Armour Museum and was intended for auction. Recovery Platoon with assistance from South Bandiana Museum sourced the vehicle and was relocated to its current position via SGT Kane Jones utilising a Recovery Platoon 45M and HET.

The M816 has two names inscribed on the passenger door WO2 Ken Corrigan-Houston and WO1 Reg Wildermuth. These two soldiers were instrumental in the commencement (Ken) and continuum development (Reg) of the recovery trade. WO2 Ken Corrigan-Houston and WO1 Reg Wildermuth are seen as the grandfather and father respectably to the recovery trade.

The significance of the M816 on the memorial is that both CFN Berryman and CPL Singh, soldiers that the memorial is dedicated, where trained and operated this type of wrecker during their service.





Additionally the memorial has an inscribed steel plate (centrepiece) with a concreted base. The steel plate has inscribed the details of the five soldiers who have passed whilst in service. They are as follows:

CFN Colin Berryman

CFN Daryl George

CPL William (Bill) Arthur Singh

WO2 Ryan Leslie and

CFN Brendon Payne

A Recovery Badge and information detailing the reasoning and associated quotes for the memorial are also inscribed on the steel plate.

A grass area surrounds the forward edges of the inscribed memorial plate and M816 landing. Within the grass area, there are six planted dwarf Crepe Myrtle shrubs. Five of the Crepe Myrtle shrubs represent each of the passed soldiers and where planted by members of the Recovery Platoon 2021.



A wooden bench contained within a pavers/ stone footing is positioned to the rear of the M816 Wrecker – this to provide a place to sit and reflect on the passed Recovery Mechanic's.



---

## ASEME Robot Wars

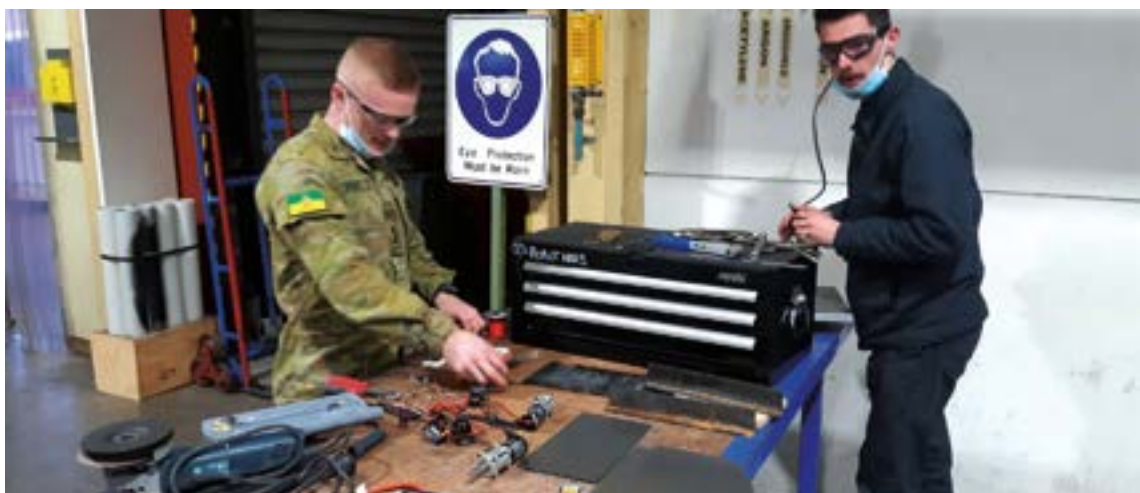
### LT Cooper Rzepka

2022 saw the Army School of Electrical and Mechanical Engineers (ASEME) its inaugural Robot Wars competition. We formed seven teams who designed and built robots, and our construction trades designed and built the arena. We also had one invited guest team from the RAAF School of Technical Training (RAAFSTT). For competition day, our local ALTC Multi Media Technicians (MMT) streamed and recorded the event.



The intent behind the activity was for ASEME Engineers and Trainees to form multidisciplinary teams to design and build a battle robot to compete on RAEME Birthday 2022. Doing so presented a unique opportunity for Engineering Officers to familiarise themselves with LMSF processes and for trainees to gain an insight into the capabilities of their fellow trades. It also provided an excellent opportunity to showcase the STEM capabilities of RAEME.

The teams began work in June 22 with a set of common parts and a set of the internationally recognised SPARC design and competition rules. Our robots were built to the 13.6kg weight class. Other than the common parts provided and a small purchasing budget, the rest was up to their imagination. The teams utilised Wednesday ASEME Sports afternoons and engineering nights to design and fabricate their creations. This had many ups and downs including but not limited to parts shortages, Officers leaving for career courses, Field Training Exercises and OP Flood Assist. In the end, seven robots were created all with unique designs and weapon systems.







*Winning Robot Ares Before*



*Winning Robot Ares After*

The event day finally arrived rushing towards the teams faster than they anticipated, some only scraping in with a few grams to spare. Whilst the teams had been building robots, 2 Troop (RAE) and the MMTs had been busy constructing the arena and production set respectively. The activity consisted of knock out rounds until only one robot was left standing. If no knockout occurred a judge's decision would be made. Overall the robots fought hard with the final two rounds turning into a five robot free for all. But there could only be one winner.



*Group photo of Robots*

With the support and assistance from BRIG Glenn Ryan, DGTRADOC, this inaugural event had been a success with everyone looking forward to doing it again in 2023. With the interest it has sparked, ASEME will seek entrants from across the ADF.

For those keen to watch the fights, the competition and build videos can all be found on ADELE by searching 'ASEME Robot Wars'.



*Group photo post competition*

---

## ASEME – Murray River Police District Kids Christmas Appeal



During the back half of the year, ASEME Staff and trainees, along with other local community organisations came together to donate Christmas gifts towards the Murray River Police District Kid's Christmas Appeal.

The Christmas charity appeal was spearheaded by the Murray River Police District Riverina Command, Detective Sergeant Troy Martin. In support of this cause, Soldiers and Staff belonging to the Electrical and Electronic Systems Wing sought the opportunity to support the community and give back to those children spending Christmas in hospital.

Through this community engagement, the Soldiers and Staff from ASEME were able to build upon values of high regard.

- Humility - Service - Excellence

On 07 Dec 22, EESW were able to deliver a trailer load of gifts, that are sure to put a smile on the children's faces. This is a cause that soldiers would like to continue in the future.





---

## ASEME – Melbourne Marathon 2022

CPL Hayden Atkins



*RAEME spirit on display before the Marathon*

On the 2nd of October 2022, several Staff and Trainees from the Army School of Electrical and Mechanical Engineering, both Army and Air Force, participated in the 2022 Nike Melbourne Marathon and half marathon, in support of Soldier On under the team name Chafe Now, Brag Later.

For most of the members involved it was their first marathon/half marathon, most of whom had never run further than 6km. About 4 months before the event I made a few flyers and posted them around the three schools, VTW, EESW and ACW, to see who would be interested in the event. Before long just over 30 people had put their names forward to participate and help raise funds for Soldier On and attempt their first ever endurance event.

About 14 weeks out we commenced a structured program to help prepare our bodies and our minds for the mammoth event. It consisted of recovery runs, interval training and then weekly big runs that started at 12km and finished off at a whopping 35km run two weeks before the marathon. Everyone showed dedication and commitment to the training and most of all, everyone encouraged each other and helped each other along the way.

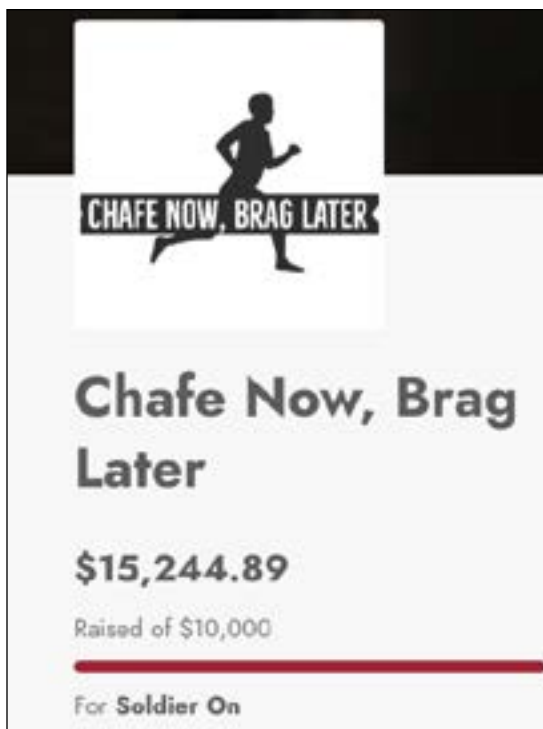


*Pre-race bravado, enthusiasm & some*

Coming into race day the excitement and angst were high among the team, months of training, sweat, blood, and you better believe there were some tears, were all about to pay off as we approached the start line of the 2022 Nike Melbourne Marathon. I don't think anything could have prepared the team for the number of people and the atmosphere of the event. Approximately 7000 people had signed up for the Marathon and another 6000 for the half marathon. It was shoulder to shoulder as the clock counted down to 7am, when the gun finally went off it was almost impossible to get to the pace's we had trained for until about 2km into the marathon. From then on, it was 42.2km of people cheering you on, handing you snacks and hydration along the way and every single kind of funky costume and footwear you could think of.



*Soldiering On!*



*Chafe now, Brag later funds raised for Soldier on*

I had never been a captain of any kind of team before, but I am incredibly proud to call the Chafe Now, Brag Later my first ever team. From the start everyone from varying fitness capabilities committed themselves to this event and the team. To undertake an endurance event like a marathon requires a strong mind, a tough character, and the ability to deal with pain and fatigue like you've never experienced before. I think that everyone that participated will remember this event for the rest of their lives and will go forward knowing that they are genuinely capable of anything they set their minds to.

The Chafe Now, Brag Later team was a complete success in all regards, by the end of the day we had raised just over \$15,000 for Soldier On and over all the team ranked 5th out of the 141 teams that registered to the event. Everyone set new personal records, and everyone came home with smiles on their faces, and ice packs on their feet!





*Finishers are grinners*



*RAEME flag at the MCG*



*WO2 Cheyne Truelove at the finish line*



# OPERATIONS

## United Nations Truce Supervision Organisation (UNTSO) - Syria

**CAPT Kate Thorne**

G'day All,



Currently I am working with the United Nations in freezing cold Syria. At the time of writing this, I have been here for 5 months, with 7 to go! A 12-month deployment supporting the UN with trying to “keep the peace in the middle east”, something that is a little harder than the brochure eluded to.

My role here is the J5 in the headquarters, but as all those who have worked with me before know, I avoid the office like the plague and the wannabe crafty in me found the workshop early, and I have been honing my skills with the Syrian locals here on camp. By the end of my time here, I would have completed my Cert 3 in Bush Mechanics.

Workplace Health & Safety here is optional, spare parts are non-existent, the tools are substandard, and my Arabic is even worse!

But what the workshop lacks in PPE and basic English skills, it makes up for it with Mad Max style Mechanics! I am truly amazed with what a couple of zip ties and a roll of politically correct tape can really do to a dying fleet of up armoured 200 series land cruisers.

This UN mission is a VMs nightmare due to the lack of awareness of what a clutch and engine break is actually used for! But one man's trash is another man's treasure, and it is a reccy mechs dream with the amount of car crashes due to there being absolutely no road rules, combined with a contingent full of people who can't actually drive!

All jokes aside – it's one hell of an experience being over here and I'm looking forward to what the next 7 months have on offer!

**Stay classy.**



---

## ASEME OP Flood Assist 2022-2

### LT Lincoln Homrody-Scott

October 2022 saw Army and Air Force personnel from ASEME deploy to parts of Northern Victoria as ALTC's contribution to Emergency Support Force assistance in flood affected communities. Two company sized elements were raised concurrently to conduct ASEME's two biannual field training exercises and placed on a reduced notice to move. Within 48 hours, both companies were redeployed from the field environment to Shepparton and Echuca, being the first ADF elements on the ground. The ALTC contingent was later assigned to JTG629.2 under 4 BDE.

#### A Coy – Shepparton (JTG 629.2.1.1)

A Coy consisted of staff and trainees who were conducting and participating in the Non-Permissive Operations (NPO) field exercise. The NPO field exercise provides trainees the opportunity to further develop their soldier skills and individual field craft learnt during recruit training at Kapooka, whilst further exposing them to section and platoon level operations in a war-like environment. This includes field navigation, section attacks, ambushes and vehicle checkpoints. During the conduct of the exercise, staffing for a deployable company sized element was drafted, established and placed on 48 hours NTM. On day five (13 Oct) the exercise was suspended, and members were sent home to refit and be ready to redeploy to Shepparton the following morning.



*A Coy at one of the sandbag filling stations, Shepparton*

Upon arrival in Shepparton on the morning of 14 Oct, A Coy was immediately tasked to assist in sandbag filling efforts, as well as sandbagging of storm water drains. Sandbag filling took place consistently over the next 5 days at a number of different sites, as well as assistance at a transfer site, ensuring that civilians were well equipped to protect their homes and businesses where possible. A Coy were also tasked with sandbagging key infrastructure, such as communications and water sites. Tasks in Shepparton were completed by 19 Oct, with A Coy returning to Latchford Barracks.

On 20 Oct, a platoon was deployed to Rochester to assist with further sandbagging of key infrastructure. Tasks also included clean-up of areas where flood waters had receded, such as the removal of flooring in the hospital and rubbish removal.





*A Coy in Shepparton*



### **B Coy – Echuca (JTG 629.2.1.2)**

B Coy consisted predominantly of staff and trainees who were participating in the Combat Service Support (CSS) field exercise. During CSS-FTX, trainees are exposed to operations within a Combat Service Support Team environment, and gain proficiencies which are critical to the completion of the residential phase of their training. The first two days of the exercise (11-12 Oct) consisted of revision lessons on individual field craft, first aid, and an initial exposure to cam nets and vehicle guiding. Day three (13 Oct) was the occupation and development of the position – by the end of day three, B Coy was on



*B Coy during the initial construction phase of the Beechworth Bakery wall on High Street*







*Beechworth Bakery wall 1 day after initial construction, and 5 days after*



*Sandbag wall along Campaspe Esplanade*

24 hours NTM. By the following morning (14 Oct) at 0730, the exercise was suspended, and B Coy was placed on 2 hours NTM and sent home to conduct refit.

On Saturday 16 Oct, at 0530, 1 and 2 Platoon departed Latchford Barracks, arriving at the Echuca Country Fire Authority HQ at around 0930, immediately being tasked to construct two sand bag walls along the Campaspe River. The first of these, initially constructed by 1 Platoon near the Beechworth Bakery on High street would prove critical to saving the CBD, whilst 2 Platoon's construction of a wall along Campaspe Esplanade was responsible for saving numerous homes in West Echuca.

Later that day, both platoons embarked on door knocking tasks to issue evacuation orders to homes deemed to be at risk from the rising Campaspe River. Whilst on task, 1 Platoon was requested to assist with sandbagging at an aged care facility to the West, and 2 Platoon provided assistance to a community sand bag filling site.



*B Coy filling and placing sandbags at the aged care facility in West Echuca*



The next few days were extremely busy, seeing multiple walls being built both proactively and reactively along the Campaspe, as well as the deployment of 3 PL and B Coy HQ. Construction began on what was dubbed as the 'Great Wall of Echuca', being a 2.5km long levee consisting of clay and sandbags, by a joint effort comprising of ADF, civilians, Forest Fire Management Victoria, CFA and SES. 3 Platoon was also deployed to Swan Hill during this time, completing sand bagging tasks in numerous locations including Kerang and Cohuna. B Coy spent 10 days in the Echuca region before conducting a handover to 4 Bde personnel on 25 Oct.



*'The Great Wall of Echuca'*

Over the course of 10 days, over 10 000 tonnes of sand was bagged and placed between the two companies, spanning over 7km. Under the leadership of ASEME Officers and NCOs, the deployed trainee Craftsmen and Aviators performed beyond expectations. The future of our Corps is in good hands.



*B Coy members repairing a broken sandbag levee to the north of Barmah*





*B Coy sandbagging a water inlet facility (with some Corps pride)*



*B Coy at their base of operations (Echuca Race Course)*

---

## Joint Logistics Unit (South Queensland)

### CAPT Nathan Pagulayan

Joint Logistics Units – formerly better known as “The Base Workshop” – or are we? You don’t often hear much about JLU’s but you’ll find that there are still some ARA RAEME and All-Corps Log positions scattered within the JLU Business Units across Australia, not to mention there are quite a few ARES RAEME personnel hidden amongst the APS and Industry Partner (IP) workforce.

Joint Logistics Unit (South Queensland) is based at RAAF Base Amberley and consists of 6 Army, 26 RAAF, 56 APS and approx. 200 Industry Partners (Ventia for Maintenance and Clothing Services, and Linfox for Warehousing and Distribution). We have three main locations (Amberley, Meeandah and Wallangarra), a presence at other locations (Oakey, Cabarlah, Enoggera and Canungra) and have 70+ customer units across the region. Amongst that workforce is one RAEME CAPT – me!

JLU(SQ) is a unit within Joint Logistics Command, and is part of a network of seven JLU’s across the country. Since March 2022, the JLU network has proudly assisted the Australian Government to provide support to the people of the Ukraine through the supply chain providing donated military vehicles, medical stores, rations, unmanned aerial systems, cold weather clothing, de-mining equipment and stores from the New Zealand Defence Force. Specifically, the JLU network provided a significant contribution to the preparation and distribution of M113AS4 Armoured Personnel Carriers and Protected Mobility Vehicles (PMVs).

Whilst there were efforts across multiple ADF units, JLU sites, CASG and external trade workshops, I was fortunate enough to be deeply involved with the preparation of the M113s and the PMVs at JLU(SQ). Depending on the platform, this included maintenance to bring vehicles to FF/ NOM, re-painting, fitment of external armour, mine blast belly plates, spall curtains, track shrouds and weapons, air transport preparation and loading the vehicles onto military and civilian flights. This activity relied on the collective efforts of uniformed personnel, public servants, IP and other external organisations. I’d like to use this opportunity to thank all of the units who were tasked with short notice maintenance on AS4s prior to sending them down to JLU(SQ), and a special shout out to 7 Bde units for the additional support with driving tasks and remediating CES issues. Noting the current climate on this conflict, it is expected that the JLU network will continue to provide ongoing support. It’s certainly been an eye-opening and memorable experience.



*JLU(SQ) tradesmen painting & fitting Armour to the M113AS4*





*The first completed up-armoured and repainted M113 AS4 for Ukraine*



*CAPT Pagulayan and the Ukrainian Ambassador to Australia, His Excellency Mr Vasyl Myroshnychenko, at Thales*

I'll conclude with some final thoughts. Before being posted here, I thought JLU's were massive in physical size and manpower; however the reality is that JLU's are facing the same personnel shortages that is being experienced within Brigades and the wider Army, and this is further reflected with the resources that are available to us via internal and external industry partners. Something that has been highlighted to me whilst I've been in this position at JLU(SQ) is that many of us don't understand what a JLU does, the breadth of units and operations that they support and how they can best support your unit. So for this, I encourage you to visit your local JLU to understand capabilities, limitations, how to harmoniously work towards the desired outcome and keeping the communication up until the end state is achieved.

# UNIT JOTTINGS

## Rotary-wing Aircraft Maintenance School (RAMS)

### Introduction of Defence Aviation Safety Regulation Aligned Training at RAMS.

The Rotary-Wing Aircraft Maintenance School (RAMS) recently started delivering the first trial programs of the Defence Aviation Safety Regulation (DASR) aligned Military Aircraft Type Rating (MATR) training for Category B2 Licenses. These trial programs began in Quarter 3 of 2022 and were delivered for CH-47F Chinook, ARH Tiger and MRH-90 Taipan Aircraft.

The delivery of these programs marks an important step in transitioning our training workforce and training output to align with DASR requirements. Whilst on the surface, training delivery is not too dissimilar from previous training programs, the distinct separation of 'Off-the-job' and 'On-the-job' training will enable better flexibility and efficiencies in training both new trainees and our current workforce on Additional Types. New trainees from the RAAF School of Technical Training will be required to conduct an Initial Type Training Course which consists of theory and examination, practical and assessment, plus On-the-Job Training in order to achieve their Category B2 license. Additional Type Trainees will only have to conduct the theory and examination, as well as the practical and assessment phase of the course with limited On-the-Job Training.

It is expected that the first trial B2 programs, including On-the-Job training, will be completed by Quarter 2 of this year. The first trial B1.3 programs for all three aircraft types have also commenced in Quarter 1 of 2023, with valuable lessons being learned as the trial programs progress for the first time. It is anticipated that the programs will proceed from trial to draft over the next year as the training is evaluated and further refined. These changes will set up RAMS to be in a good position to support the introduction of new Aircraft Types into Army Aviation.

### Applethorpe State School Visit



Members from the Rotary-Wing Aircraft Maintenance School (RAMS) recently made a visit to Applethorpe State Primary School to see the students and staff of the School. Students from Applethorpe State Primary School had reached out to the Army Aviation Training Centre with some letters, poems, as well as some items of art and craft. In response, it only seemed fitting that a small delegation made its way down from Oakey to the Granite Belt to say hello and thank them for their messages.

LT Jake Elliot, LS David Cormack and CPL Matthew Hensby made the trip down with a few items and gifts from RAMS to conduct a show and tell with the 60 students that are currently attending the small school. LT Jake Elliot mentioned that "the school trip was a rewarding experience for the team and myself.

It was wonderful to have the ability to make the kids smile and laugh. Being able to thank the children for their Christmas cards, was great from the moment we arrived, to the moment we left".

The trip was considered such a success by the School Principal Martin Hodgson; that the staff and students of Applethorpe Primary State School are considering a visit to the Army Aviation Training Centre and the Aviation Museum sometime in 2023.



---

## 1st Armoured Regt

The year kicked off busy with a COVID outbreak forcing the unit into shift work and disrupting the normal mandatory training/unit acclimatisation process. A majority of RAEME personnel completed the Non RAAC courses camp while nervously watching the escalations in Ukraine, and rolling straight into Flood Assist (Ballina, Lismore) in early March. General Dynamics held the fort with a handful of green staff remaining behind, conducting a few in house maintainer courses on Tank in the meantime.



*Preparing for live fire on the courses camp*

The WORM and EMEWO achieved carton notoriety after helping the Empire Vale Post Office clean up and get back into action, no good deed goes unpunished. Once it was clear the operation was wrapping up, some members were allowed to go as far as the Gold coast for some rest and respite, however a plane was magically acquired four hours into the day off and there was a mad scramble to get back for the flight. After a brief rest period, it was back to smashing out the backlog, and getting the Regiment ready for Exercise Paratus Crawl in March. Special mention goes to an unnamed Reccy Mech for breaking two M88s in 24 hours, resulting in a very anxious eight hours trapped in a range trace waiting for an idler wheel to be delivered and an awkward conversation with ASM B, *"I'm fine, it's fine, deep breaths everywhere, we can get through this"* – ASM B.



*Australian Army soldiers Warrant Officer Class Two Robert Elian (left) and Warrant Officer Class Two Michael Foster with Mr Gary Carr, the Empire Vale Post Office manager, after providing flood damage clean-up assistance as part of Operation Flood Assist 2022*





*Craftsman Davidge puts on his blue steel during Flood assist*

Domestic operations continued interjecting into the pattern of the unit fighting to get back into a semblance of “unit routine”, with many members on standby for aged care even before wrapping up Floods. August saw the Regiments final Exercise Predators Run as part of 1st Brigade, don’t stress Darwin, I’m sure we’ll be back soon for more helpings of sweat and bull dust. CPL Murphy pressed the Reccy mech OJTs into supporting the road move with the promise of many sweet signoffs to be conducted with 1 CSSB 45Ms as the regiments own vehicle is permanently living at JLU-South. The monotony of endless security tasks, Air Reds and BCTs was punctuated by the chaos of a carrier rollover, cue the WORM plus M88 and one of the A2 Fitters tracks disappearing into the setting sun to enact the recovery. Thankfully nobody was majorly hurt, with the Malaysian section riding in the back dusting themselves off and asking CPL Smith (Smudge) if he would mind getting the carrier opened a bit quicker so they could get the rice out for a breakfast cook up?



*Team Three (Combined Support Squadron and part of B Squadron) and SES returning from clean up on Cabbage Tree Island, a Ballina indigenous community severely affected by the flooding. The majority of houses were condemned despite our best efforts to clean them up for repair*

Spring saw C Squadron dismount from their PMV-L to conduct a RCB rotation. The grizzled infantry re-tread CFN Jarrett was roped into teaching the troopers the finer points of weapons calibres below 12.7mm and survival without a fridge full of cokes. Support Squadron held off A and C squadron in a number of sports during the reinvigorated Blood week, but lost many members

to injuries and was unable to defend against the dominant B Squadron, coming second overall. Cambrai Parade saw the official incorporation of 3rd/9th South Australian Mounted Rifles as the regiments fifth sub-unit as part of the hybrid fulltime/part time 9th Brigade structure, with many SA and 1st Armoured veterans marching side by side with the sub units. All vehicles made it off the parade (surprisingly), with the sole casualty the RASM copping a face-full of chicken, but he's made it this far, it'll be fine.



*Lance Corporal Ian Cooper of Support Squadron, 1st Armoured Regiment kicks a conversion during a game of inter-Squadron rugby as part of the Cambrai week sports carnival at RAAF Base Edinburgh, South Australia*

Manning continues to be an issue as I'm sure it is everywhere. It is encouraging to see some maintainers are choosing to stay affiliated with the Regiment through SERCAT 3/5, the extra support is appreciated if maybe not adequately expressed. If you are in the SA region and thinking about dipping your toes back into the murky green waters, come to the workshop for a brew and we'll figure out where you can fit in, there'll be plenty of space.



*Regimental Sergeant Major of the 1st Armoured Regiment, Warrant Officer Class One Andrew Remin, OAM, marches on parade beside an Australian Army M88 Hercules as part of the Cambrai Parade held on RAAF Base Edinburgh, Adelaide*



---

## 10 Force Support Battalion

### Maintainers of the 10th Force Support Battalion

#### CFN Eric de Wet

The role of the 10th Force Support Battalion is to provide general level, specialised logistics support as part of the 17th Sustainment Brigade and the wider Australian Defence Force. RAEME is a key component of this organisation, with maintainers spread between Lavarack and Ross Island Barracks, encompassing all land ECN's found within the Corps. These maintainers are split between the 10th Logistic Support Company and 35th Water Transport Squadron. This year has been as busy and fruitful as ever, and has also seen the introduction of the first RAEME Commanding Officer of 10 FSB, LTCOL Timothy Hawley.

There is always a certain fallacy that surrounds the ideal of a crawl, walk, run series of exercises and 2022 proved to be no different. A large turn over across the myriad of ranks, a fresh PL COMD and an ASM deployed, ensured a rapid learning curve for all. A promising year was drastically cut short, and TSP were pulled within 24 hours of deploying on Ex Warhorse 22 to commence the long drive down to Lismore on Op Flood Assist 22. A four week support and clean-up effort turned into an eight week test of objectives. By no means did this slow the influx of work on the home front however, with 10 FSB completing more work pound for pound than our 3 CSSB neighbours over this period!



*CPL Myhill and LCPL Cincotta on AACAP 22*

People may think that being in the general support we would be relatively limiting in terms of exposure and trips. This again has proven to be a misnomer, with the influence of the Battalion felt both domestic and internationally, commencing with the motley crew of CPL Russ Myhill and LCPL James Cincotta in support of AACAP 22. CPL Jimmy Helbich disappeared for a few weeks throughout the middle of the year and on return was decorated with a medal. Some say this was for a holiday in the Dubai desert, however nobody knows. We do however know the whereabouts of his DCAC and mobile phone for that matter, left in the departure lounge at Dubai International!

From deserts to turquoise waters, our Marine Engineers consisting of LCPL Harry Stirling, CFN Tyler Grinke and CFN Mitch Ryan were deployed several times. Clocking up their sailing miles and

stretching out their sea legs around the South Pacific on IPE, Torres Strait and North Queensland waters, they have proved invaluable in conjunction with their 35 WTS brethren. As is so often with the marine trade, the high turnover and tempo has garnered plenty of long days, but they should be applauded for keeping the ageing fleet of Vietnam era amphibious craft afloat (they have to earn that MDA somehow!). Special mention to SGT Warren “Squizzy” Taylor and the team for their ability to work through some pretty arduous conditions and across all hours as is the RAEME way. The remainder of the year was a revolving door across the Workshop, with CAPT Angus Cutts being banished to Sweden, CPL Brandon Maruna to JATT-P for the majority of the year and former infanteer turned electrician turned PMV driver CFN Karim Wallace supporting 4HB as a on IPE 22.

The latter half of the year consisted of the Company Shakeout, Ex Warhorse 22 (Mark 2.0). As we all can attest, WBGT black experience can be quite limiting in terms of training, but we managed to cover a few objectives and have a little fun too. Our VM LCPL Jimmy ‘Cinco’ Cincotta had an opportunity out field to teach a young LT how to engage 4WD on his Toyota Hilux, thus using the vehicle to its fullest potential and getting him out of a sticky situation. One reality the young LT couldn’t avoid was the payment of a carton for his worthy bid for Tool of the Week. The payment was later taxed with another carton as the workshop grew thirsty while waiting for the first. Never let the Crafties go thirsty, which brings us to the grand finale for our year at 10 FSB – RAEME 80th Birthday!

### **North Queensland 80th RAEME Birthday – The Best One Yet!**



*LTCOL Hawley and CFN Gardner Cutting the Cake*

10 FSB has the great pleasure and distinction of hosting the 80th North Queensland RAEME Birthday. The RAEME family celebrated their esprit de corps with a volleyball competition, generous and endless raffles, show and shine, a special LARC-V pull, spanker throw (a lovely portmanteau of anchor and spanner), and the traditional go-kart race. Nobody could complain about being thirsty as the beverages flowed from several kegs, a well-stocked fridge and the occasional shoe. Food trucks and numerous displays littered the Land L121, with a large thanks to be extended to all who sponsored and participated. Our resident greasers, CFN Jack Gardner,



CFN Jakob Vickers, CFN Tom Croker and CPL Josiah Palombini can also be commended, as they built our go-kart from a combination of gurney motor engine customised with a turbo in just three days.

A special mention must also to SGT Leino Ahlstedt who did his best work from home whilst attending SUBJ 4 WO, but always showed up for PT to school the young soldiers and get the event off the ground. This must also extend to WO2 Jason Ballard, who has assured us that the benchmark has been set and is wishing to surpass the event next year on posting, to that we say good luck! The 80th RAEME Birthday will be one to look back on fondly, and we sincerely hope everyone had as much fun as we did!

### **Another Year Done...**

The 10 FSB RAEME soldier is proactive who needs to love problem solving. Every task, FRT or deployment as a workshop affords an opportunity to broaden our technical experience and place ourselves at the centre of making key decisions. This dedication to the 10 FSB Workshop ethos can be seen in the promotions we had this year. The Germans, Paul Heinrich and Jimmy Helbich, Mick 'RPS God' Byers will start the new year as Sergeants. We had Cody Harris, Harry Stirling and Tim Pates promote to Corporal while Tom Croker and Sarah Murray both got their first hook. This speaks volumes to the quality, aptitude and ability of all those within the Workshop and can safely say that all promotions were well deserved and best enjoyed with an ice cold beer. As the year concludes, it is also inevitable that we must share our large talent pool across the Army or back into the civilian world. To those leaving it has been privilege and pleasure, and you will always be welcome to the Workshop and Bull Bar.



*There is nothing light about a LARC!*

Overall, it has been a very busy year, but that is not an unusual story for the spanners of 10 FSB. With reduced staffing on the workshop floor and an ever-increasing stream of deployments, support efforts and tasks; we've experienced many challenges along the way. Despite these challenges, members of the Workshop team remain steadfast in supporting one another, moving forward as one, and celebrating every success as if it were our own.

### **Arte' et Marte'**

---

## 101 Field Workshop Company

### Recovery Platoon – scribe LCPL Cooper

1 CSSB Recovery Platoon had a rather rambunctious start to 2022 with almost half the platoon smashing out their M88 operators course, whilst the rest of the platoon did what recovery platoons do best: provide essential recovery support to our brigade as well as completing all transport tasks. Attentions were quickly diverted away from training and production to a little known operation known as OP FLOOD ASSIST in which almost the entire platoon deployed and gained a far greater appreciation of soil liquefaction through many recovery jobs.



A personal highlight of OP FLOOD ASSIST for CPL Riordan was the moment he was able to finally fulfil a long standing dream of....using a Telstra phone box again, initially CPL Riordan took the opportunity to provide an impromptu soldiers 5 to the younger members of the platoon on what this tiny building was for and how people used it.

For those members who returned early enough from OP FLOOD ASSIST, they had the grand opportunity to support the mud races as well as provide a capability display for the adoring crowd of glitterati. Since we were 'not allowed to race' our rolling demonstration was an elegant display of control and professionalism with only a minor 10 foot wave of water expelled from the course due to the steady displacement of water by the formidable

recovery vehicle....side note: we've been invited to compete next season and are quietly confident we'll dominate the competition!

In the lull between flood assist and the obligatory dry season exercises, we managed to send a highly capable and elite force to sunny ol' Puckapunyal to support the fine soldiers of

RMC-D for one of their quaint little exercises that clearly turns them all into combat hardened, highly focused and competent operators...thank god we have them to lead us! It turns out Puckapunyal can be a little bit chilly in the winter months, however in true RAEME fashion we managed to adapt and overcome this minor obstacle through skilful ingenuity...we set up a patio heater.



Prior to deployment on exercise PRED RUN a chain of unfortunate events lead to one of the Parks Australia graders becoming bogged in the middle of Kakadu National Park, as such they were in dire need of recovery assistance. It was a delightful jaunt for the guys available that attended the recovery due to its unusual nature and the ability to provide real world assistance to the local community as well as integrating with the park rangers.

The final significant event of the year came in the form of EXERCISE PREDATOR RUN or, as the WORM liked to call it, A BDE exercise with no CSST level maintenance..... NONE AT ALL. It is known that occasionally certain individuals would prefer not to deploy on an exercise for whatever reason, and occasionally they may try to exploit the system in order to ensure they don't have to deploy, however, never in my 18 years of military service have I ever witnessed a soldier go to the lengths that CFN McAllister did to get a quick trip home; he took it upon himself to swan dive off the top of the M88 into a 180 degree flip in order to break his ankle when he impacted the ground.... He claims he simply slipped as he was climbing down and landed 'funny' on his ankle causing the injury. Very convenient to have occurred so early on in the exercise. The WORM managed to diagnose every fault with 1 CSST ARVL and then abandon the bucket of S\*%# for a 42M, in which he managed to achieve 12 sign-offs. The rest of the Platoon left in location had a brilliant time conducting a myriad of recovery tasks whilst the rear ops recovery team that consisted of CFN Flahavin, carried the bulk of all brigade recovery support and tent erecting for the duration of the exercise, what a soldier!

TY 2023 sees the team reduce in numbers, again! Forcing the platoon to adopt the 'do more with less' attitude that seems to be the 'new norm'. Good luck to us with only 6 pers and the super crafty – CFN Flahavin carrying the platoon onwards and upwards into the littoral operations space, whatever that is.

### GE Platoon – scribe WO2 O'Connor



Another memorable year is drawing to a close and the soldiers of GE PI are preparing to take a well-earned break to catch up with family and friend over the NY. 2022 started with the remnants of COVID-19 still lingering painfully in the background, as the Bn was quickly thrust into gear to assist with the NSW state emergency caused by the floods in Lismore, Casino, Coraki and Woodburn. The Casino racecourse hosted around 200 of the Bde. The spartan horse stables and betting ring were made home while the mammoth task took place. We were soon joined by our Navy counter parts in a unified effort to assist the community. GE was represented by LT Gilroy, WO2 O'Connor, CPLs Jacobson, Hofmann, Miller, Abbot and Clarke, CFNs Carnie, Collins, Cramer, Domain, Healy, Hull, Megarrity, O'Dea, Simon, Tancock, Tijou and Wilkinson.

Soon after our return to the NT another contingent set off to Victoria with Operation Aged Care Assist, supported by members of GE PI, namely CFNs Hamilton and Keirs. Not long after their departure, Exercise Buffalo Walk kicked off in Cultana supported by CFNs Brunet, Carnie, and Kersnovske.



The multi-nation Exercise Predators Run in August at Mount Bundy Training Area allowed GE PI to witness first-hand the interoperability of other nation forces in a littoral brigade scenario. Post PR, the training then led into weapon transition skills, urban clearance techniques culminating in the participation of the live-fire activity, all arms defensive position using indirect fire support weapons, Javelin, Mortar, M777, ASLAV and M1A1.



The lads from our Advanced Manufacturing and Fabrication team provide the new CA an in-depth explanation on our new deployable capability. The 3d printing capability which was deployed to Shoal Water Bay in 2021, where it was tested in real-time situations.

The remaining months of 2022 saw the PI return to supporting both our own integral sub-units whilst still providing support to our dependencies. The usual culprits still found a way to keep us busy, 100% stocktakes, dining

in and out nights, workshop functions, RAEME Birthday, have been a really nice way of rounding the year out. For all those that are posting, transitioning or staying with me, Merry Xmas and stay safe, it has been awesome.

### **Vehicle Platoon – scribe SGT Crawford**

The year has been full of new experiences and opportunities for Veh PI as 1 CSSB begins to shift its focus to provide support in the littoral environment. In barracks, trade was constant in the lead up to Exercise Buffalo Walk and Exercise Predators Run, assisting 1 BDE Units with maintenance and repairs.

During the field training, Veh PI provided forward repair teams throughout the battle space enabling fuel trucks to supply forward and armoured vehicles to re-join the battle and to continue to push forward. This year the dispersion of 1 CSSB saw 3 x PL size elements made up of three Corps which was able to be self-sustaining and provide close support to forward Units.

Throughout the year Vehicle Mechanics were detached to support other exercises such as... The vast contingency of Veh PI was deployed on OP COVID Assist, OP Flood Assist and OP Aged Care Assist to do their part for the crazy year of events. CPL Wordsworth, LCPL Shiel, LCPL Green and CFN Swift had the opportunity to deploy to Timor and work closely with host nation forces. Closer to home, exchanges with the United States Marine Corps occurred, allowing the VMs to spend a couple of days in their workshop and their maintainers in our workshops. The friendship established with the USMC extended to RAEME Birthday where members from both nations were able to enjoy beers together and celebrate the day.

Throughout the year, Veh PI has provided members to help with multiple community events such as the fun run for St Michaels school and swimming carnival for St Pauls school. In September, one of Veh PL members SGT Ricky Crawford attended the ADF National Clay Shooting Championships where he won the overall ADF National Championship Title. Recently 1 CSSB completed a 24hr Medley swim for the Medley for Mental Health Foundation which saw 101 Fd Wksp swimming in excess of 1700 laps.

### **Ex Arafura Warrior – scribe CFN Hayes**

Over the course of 2022 several RAEME Officers, NCOs and Craftsmen from 101 WKSP, 1 CSSB had the opportunity to participate in EX ARAFURA WARRIOR in Timor-Leste. The purpose



of the exercise was to promote and enhance the capacity of the Timor-Leste Defence Force (F-FDTL) as well as build and foster relationships within their military.



Our RAEME personnel were embedded into different units during the exercise, including their Engineering Company and UAS which is the combat service support equivalent within the F-FDTL. I was fortunate enough to work alongside members of their engineering company, assisting in maintaining and repairing equipment in preparation for their high risk weather season.



Whilst in the engineering company we had an interpreter with us to help overcome some of the language barriers whilst we diagnosed their equipment. Their assistance was invaluable during our six weeks and was great in allowing us to get to know our F-FDTL counterparts during our time.

Another highlight of the exercise was a Timor-Leste history tour presented by a MAJ posted to the Defence Cooperation Program. The tour included a brief overall history of Timor-Leste, including, the Portuguese and Indonesian occupation, World War One and Two, and the events leading up to United Nations peacekeeping taskforce INTERFET. Everyone found the tour informative and it gave the group an insight into the history of Timor-Leste.



Nearing the end of the exercise, a soccer game was organised between our contingent and the F-FDTL engineering company. After working together for the previous five weeks it was a great way to bring everyone together for some competitive fun. The game was played at a fast pace and unfortunately they were too good for us, we lost the match 3-2.

Overall, the exercise was a great opportunity to meet and collaborate with our Timorese counterparts. I would highly recommend anyone who has the opportunity to participate in future exercises to grab it with both hands.

While the year has been a busy one, there has been a lot of success and learning. We farewell those discharging, those posting all around Australia and welcome in the new members joining 101 Fd Wksp in 2023.

---

## 102 Field Workshop Company

### 2022 In Review - LT Ford

The 2022 year for the workshop commenced with the usual turnover of staff and many other vacant positions that failed to be filled as part of the posting cycle and quickly led into a round of exercises and activities that has seen no end to this point.

After an initial ACAU audit to determine the level of LMM compliance, the workshop personnel knuckled down to achieve equipment availability levels commensurate to the taskings pushed out from OPs. The focus this year was to aid the other units within the Brigade to achieve their directed tasks through FRTs deployed directly to these units or having equipment called into the main workshop for repair.

The highlight for some VMs being the arrival of two M1A1 from 1 ARMD REGT that required maintenance prior to being delivered to Darwin. The workshop personnel involved in these maintenance activities enjoyed the challenge and demonstrated mastery of their trade.



*1 ARMD M1A1 being repaired within 102 FD WKSP*

### Blast from the Past

Quarter One 2022, General Engineering Platoon was tasked by Lieutenant Colonel Brown, Commanding Officer of 3rd Combat Service Support Battalion (3CSSB), the restoration of WWI German 7.58 cm Leichter Minenwerfer that had fallen into disrepair, following its retirement to a rural property for the past one hundred years.

These light-mortar guns were manufactured from 1909, by Rheinmetall. This particular variant, with its circular firing platform, would have been manufactured in 1916. The weapon can fire 10lb mortars at a full 360°, following their update from the 1909 model which was operated off a rectangular firing platform. The mortar, weighing 147kg, was designed to be carried by 6 men, with wheels fitted to the newer 1916 models to allow for easier transportation. The weapon is capable of firing between 300-1300 metres, up to 45 rounds per minute and has 23.5cm length barrel.



The mortar was significantly rusted and had undergone numerous patch up jobs in an effort to reinforce the key components and maintain its lifespan. However, it was clear that the weapon needed a complete refurbishment, including the removal of a star picket welded to the baseplate acting as a structural member to brace the weapon system.

General Engineering Platoon members carefully broke down the weapon, separating all the major components and triaging the work required to restore the mortar. The Wheels, mortar baseplate, the main body, the recoil body and the main component of the gun were all removed. With these major components separated from the mortar, work could begin on restoring this piece of hardware and the eventual process of rendering it inert could begin.



*WWI German 7.58 cm Leichter Minenwerfer*



*CFN Wallace and CFN Damen admire their handiwork*

Each component was inspected, diagnosed and a plan was created for the restoration of the components before the eventual reassembly. Lance Corporal Jordan Hannan and Craftsman Ben Damen undertook the research task, reading widely on the maintenance of these pieces of equipment, in addition to assembling a cache of photos from archives and the Australian War Memorial, in an effort to make the restoration as close as possible to what this weapon would have looked like 100 odd years ago when it came off the production line.

All parts requiring cosmetic work only were sandblasted, with great care taken to ensure the original serial numbers across the weapon were preserved. It is worth mentioning, serial numbers do correspond.

The axle and base of the mortar were rebuilt, as they were beyond repair. The robust research allowed for authentic replacements to be produced. The wheels were refitted with new sleeves, the recoil body had its damage rectified and minor cosmetic replacements were fashioned to preserve its authenticity.

With the Mortar entering its final stage of repairs, the last component being refurbished is the elevation system. Once completed the Craftsmen of General Engineering Platoon will be able to complete the reassembly and render the Mortar inert. 102 Field Workshops and General Engineering Platoon are eagerly awaiting the return of the mortar to Mackay on Remembrance Day.

---

## 3 Brigade Warfighter 2022

### CPL Pauley Rnzalr attached to 3 CSSB Recovery element

From July through to October, I have been attached to 102 Field Workshops, within the 3 CSSB as part of an exchange program between the ADF and NZDF to build capability and cross-pollinate trade skills and learning. During this period, 3CSSB deployed on Brigade Warfighter 2022 between 15 – 29 July. I deployed as part of the Combat Service Support Team, enabling the Brigade warfighting elements. Workshops Platoon provided integral maintenance to our own logistics elements in addition to providing close maintenance support to the warfighting elements throughout the exercise.

Over the two week period we were regularly called upon to put our skills into action. Within the first two days, Workshops platoon had completed pack lifts on two M113 AS4. This was a challenge and great opportunity to test our trade skills in the field. Utilising the 45M Heavy Recovery vehicle crane, we were able to remove the pack from each AS4 with minimal friction. It was impressive to see this piece of equipment being used in this instance, noting that this was only a small example of its capability. A good operator on the crane and repair team on the ground can quite quickly remove a pack, diagnose and refit a vehicle when the conditions are right. The CO of 3 CSSB, was strongly encouraging us to grab every opportunity and pushed hard for our maintenance element to be afforded the time to conduct these repairs in exercise, which normally would not be undertaken in the field environment.



*AS4 Pack removal*

Having experience in both the Vehicle Mechanic and Tech Elec spaces, I was included in the numerous Forward Repair Teams our Platoon Commander was deploying throughout the exercise. We ended up providing a maintenance effect to the infantry call signs, artillery regiment, engineers and logistic elements in the battlespace. Throughout the conduct of the exercise I was afforded the opportunity to work on a range of vehicles and equipment from Bushmasters, generators, M777's and multiple recovery tasks across the Battle Group. At the conclusion of the exercise workshops were called upon to support the Combat Engineers Dry Support Bridge that they were establishing for the Battle Group.

More than anything, I enjoy swinging spanners and getting my hands dirty. My fellow platoon members afforded me every opportunity to learn and were incredibly inclusive. In return, I was able to pass to them my own skills and knowledge. On reflection, I feel like while the trade and technical aspect of the exchange program has been a great experience, the ANZAC relationship between Australia and New Zealand still abounds to this day.



## **RAEME In Papua New Guinea – Training and Maintenance with the PNGDF.**

On the 2nd of March 2022 a small RAEME element from 102 Field Workshop, 3 CSSB, deployed on Exercise Olgetta Warrior as part of the Mentoring and Training Team – Alpha, to Papua New Guinea as part of a contingent to deliver training and mentoring to the Papua New Guinea Defence Force (PNGDF). These members included; LT Tiffany Vickers (RAEME GSO), SGT Dean Allen (VM), CPL Bryce Webb (VM), CPL Mark Campbell (ASEME, Fitter Armourer), CFN Nathan McNally (VM) and CFN Henry Bill (VM). After a number of briefs the RAEME team departed Australia with a ready mindset, eager to get stuck into work.

The call sign was split across Papua New Guinea, with members spread across Port Moresby, Lae and Wewak. Maintenance and training was conducted over the three month period and the same challenges at home were often met while in country, namely parts availability.

Early into the exercise, a Forward Repair Team headed up by CPL Webb and CFN McNally, moved to the Goldie River Training Depot, for maintenance to be applied to the four Landcruisers in the transport yard. Facing not only challenging conditions on the dirt and mud road on route to the task, but also the challenges of working outside their regular maintenance space and not having their full complement of tools and equipment.

Despite these challenges, CPL Webb and CFN McNally were able to navigate both the driving conditions and technical challenges, completing the required repairs and servicing before moving onto their main effort in Lae.

Meanwhile, CPL Campbell and LCPL Goddard were tasked with delivering armourer training to the PNGDF soldiers. The PNGDF soldiers having already completed trade qualifications allowed for a speedy transfer of knowledge and skills across numerous weapon systems over two weeks. A credit to CPL Campbell and LCPL Goddard, the PNGDF ran the course a total of three times across the exercise.

The successful completion of this exercise rotation were relieved at the end of May. CFN Matthew Kirkpatrick from 102 Field Workshops arrived in PNG with the task of creating a Basic Small Engine Maintainer Course.

CFN Kirkpatrick, along with other members from 3 Brigade RAEME elements, created from scratch, a course designed to qualify soldiers on the maintenance, fault finding, rebuilding and operation of 2 and 4 stroke engines.

Starting with the reassembly from the crankshaft onwards, soldiers were instructed on the reassembly of all major components, include pistons, piston rings, flywheel, and valve train and so on. Following on from this is the servicing of the engine and diagnosing and repair of common faults. If the engine is successfully repaired and running, the team, including CFN Kirkpatrick, then instruct on tuning the engine and induce more common faults beyond the assembly stage that PNG soldiers will find, diagnose and fix.

Once the soldiers had successfully completed the required training and had been assessed on the lessons learnt for both 2 and 4 stroke engines. CFN Kirkpatrick and the team successfully implemented two iterations of the course, including funding for speciality and precision measuring tooling to ensure the PNGDF soldiers have the full experience on actual engines they will be working on in the future.

These two excerpts from Exercise Olgetta Warrior are great examples of the ADF building relationships in our near region and the results and feedback from both are a credit to the members deployed on exercise, their units and the Australian Army.



*The Australian Chief of Army, Lieutenant General Rick Burr, presented students from the Fitter Armament Course their completion certificates*



*Australian Defence Force vehicle mechanics from the 3rd Combat Service Support Battalion working alongside Papua New Guinea Defence Force vehicle mechanics in Wewak. Photo left to right: CPL Konjip Crisi, SGT Dean Allen, CFN Henry Bill and CPL Eyane Asiah*

### **102 Field Workshop Support to Team Army V8 Supercars Townsville**

102 Field Workshop provided two of our Craftsmen to support Team Army at the recent Townsville V8 Supercars event, over the period 08-10 July. Craftsman Thomas Snook and Craftsman Will Goddard were involved for the three day period. These Craftsmen are great examples of tradesmen within Defence and the opportunities and experiences which are on offer.

In locations closer to capital cities, Team Army is often supported by Craftsmen conducting their initial trade training (ITT). For events further outside these areas, Team Army will draw from Units who are willing to provide support in the form of OJT's, or in this case, tradesmen.



*CFN Snook enjoying family time with Team*

CFN Snook and CFN Goddard manned a vehicle stand and offered their insights into life in the Army, the workshop and the technical trade skills that can be obtained through joining the RAEME corps.

A popular stand was the 6x6 G-Wagon, fitted with an ASLAV engine, twin turbo and supercharger, complete with numberplate 'Matilda'. 102 Field Workshops provided Bushmasters for the public to familiarise themselves with, given the heightened interest since their provision to the Ukraine.



Team Army is a fantastic opportunity for trainees and Vehicle Mechanics to get hands-on at public events, doing the thing they love most – swinging spanners and playing with vehicles.

Team Army also counts 'Project Digger' as one of its most popular assets – a 1978 Ford LTD with long links back to the ADF, once owned by a former General.

This kind of task is a reward in itself, though Craftsmen Snook and Goddard were afforded time on the track, conducting hot laps and burnouts and time to show their families the work they do.

Team Army has a fifteen year history with ADF and 102 Field Workshop was proud and happy to support this effort and reward our Craftsmen.

In all it has been an exciting and challenging year dealing with manning and broader army issues throughout which 102 Field Workshops has managed to maintain the rage. We managed to have personnel deploy on multiple domestic and international operations and achieve all tasks presented to us from within the 3rd Brigade.

2023 will no doubt bring further challenges as the unit prepares for Ex Talisman Sabre and other lead-up activities. For all those moving on from 102 Field Workshops, thank you for your efforts during your tenure at 3 CSSB and to those coming in on posting in 2023 (not many), strap yourselves in for the wild ride.

Happy 80th birthday to all current and ex-serving RAEME personnel,

***Arte' et Marte'***





## 113 Field Workshop Company

LT Amelia Swenser-Smith

### 2IC – 113 WKSP COY

Another 12 months have passed and the small band of 113 Workshop Coy members have achieved a lot in this time. The demand for maintenance has grown, with the expansion of 13 Bde due to the re-raising of 10 Light Horse and 13 Field Engineer as Regiments, 16 RWAR Battalion developing their marine capabilities, and the inclusion of ten PMV-L Hawkei.

As a Coy and Bn, we have embraced the change and adapted to grow and manage our capabilities. CPL Poole and CFN Doherty provided marine maintenance support in support of 16 RWAR's participation on Avon River Descent 21 and 22. The event provided a number of unique opportunities for 13 Bde elements. It allowed 16 RWAR to test and gain experience on their newly acquired rigid inflatable boat developing marine capability, as well as affording the Workshop the ability to showcase the marine engineering capability that was utilised to assist in keeping the boats operational in a rock infested river.

### Supporting Operations – OP Flood Assist

CPL Cain, LCPL de Jong, and CFN Sadaria, travelled east in April as part of the 13 Bde contingent to support Flood Assist efforts in and around Lismore. LCPL De Jong and CFN Sadaria were unlucky to be COVID affected and to spend the majority of their deployment in quarantine. CPL Cain and CFN Gould (9 CSSB) were able to arrange the CDF to hold the RAEME flag at the front of the contingent photo.



*OP Flood Assist - CDF holding the RAEME flag*

### Achievements

The Coy's three long standing SERCAT 5 trainee Recovery Mechanics; CFN McDonald, CFN Robertson and CFN Robinson, have had the privilege to be the last ever Recovery Mechanics to complete both their Mod 1 and 2 course on the legacy fleet Mack HRV and Unimog MRV. It will be sad to see our HRV and MRV retire in December 22. This will allow time for our Recovery Mechanics complete their OJT before they upskill to be able to utilise our new 42M and 45M vehicles to their full capacity.

Our SERCAT 7 vehicle mechanic and passionate runner CPL Cam Webster competed in a number of events this year. His longest achievement was 94km, seven km further than his previous mark in 2021. This equates to running an average of 7.39min/km over the 12-hour duration event. Cam will be missed by the Workshops as he transitions from Army to start a career within the mining industry.

Our electrician, CPL G Martin completed one of the Workshops longest FRTs conducted in a single day, 1250km to Karratha and back to undertake urgent repairs. It was a normal Tuesday night on 3 May 22 until CPL Martin received a phone call from the 2 DIV ASM. The task required a Tech Elec to fly to Pilbara Regiment to conduct a TI on a G-Wagon Ambulance Module that was required to support Operation Resolute. Less than an hour later 13 CSSB OPS had approved the task and the flights booked. CPL Martin prepared his suitcase with all the equipment required to conduct the task and was set to fly the following morning. Shortly after arriving in Karratha he commenced work on the G-Wagon Ambulance and he ran into a problem straight away. The G-Wagon Ambulance variant requires a specialist cable in order to test the RCD. Luckily, CPL Martin with a bit of ingenuity was able to manufacture a makeshift cable utilising Pilbara Regiment's resources to complete the task.

### **Army and BHP Partnership – Appointed SSO Logistics Officers**

In August 2021 six co-workers at BHP submitted their expressions of interest to join the ADF as part of the Army Reserves and BHP partnership. In a few short weeks these six individuals progressed through the Defence Force Recruitment process to their Appointment Ceremony in October 2021.



*SSO First Appointment Course - Mod 1 training at 13 Bde*

Three SSOs were allocated to Workshops. With the challenges presented in 2021 as a result of COVID-19, the SSO First Appointment Course (FAC) Mod 1 training was held at 13 Brigade where a team of FAC instructors had to travel into Perth from RMC Duntroon. Through the first appointment course the SSOs were introduced to series of new challenges well outside their comfort zone and set clear expectations for what is required of an officer to progress their career within the ADF.

The beginning of 2022 brought with it new responsibilities for the 113 WKSP SSOs as platoon commanders within the company as well as the Bn receiving an additional four RAEME BHP

SSOs in July 2022. LT Vipu Mathew was appointed as the PL COMD for Electronics and Electrical Systems, LT Vignesh Ramasubbu appointed as PL COMD for General Engineering and LT Aarunya Dave taking on the role for the Vehicles and Recovery Sections. The SSOs have been fortunate to get a smooth handover as well as sufficient guidance from the 113 WKSP leadership team.

### **Building Capacity – EX Koolendong**

In July 2022, 113 Wksp provided support to 10 Light Horse Regiment on EX Koolendong as part of the 13 CSSB contingent that was based out of RAAF Curtin. This involved a 4700 km return trip from Perth to RAAF Curtin up the coast road before returning the inland route to undertake some community liaison at Newman. The FRT operated from RAAF Curtin and travelled extensively further north into the Ex area of Yampi sound to administer support.



*LCPL De Jong, CPL Cain, WO2 Wharton and CFN Doherty supporting 10 Light Horse Regiment on Ex Koolendong*

### **Driving Innovation**

Most recently LT Aarunya Dave and LT Vignesh Ramasubbu have started to collaborate with LT Maciek Bilski in the 13 CSSB Innovation Cell on a project relating to the design, certification and fabrication of a training aid for the vehicle recovery section. This project will involve the use of the Makerspace facility at 13 CSSB HQ to complete the detail design of the recovery training aid (initially designed by CPL Vincent), certify the design and proceed with the fabrication of the training aid. The team hope to bring their civilian/industry experience from BHP into Army to contribute to the 13 CSSB CO's and COMD 13 Bde's guidance for 2022 around preparedness and innovation.



---

## 2nd Cavalry Regiment

### CPL David Seymour

For the RAEME and workshop members of 2 CAV REGT, the commencement of 2022 thankfully started with the scourge of COVID-19 mostly behind us. With only a few restrictions remaining in NQ and the odd mini-outbreak here and there, it was business back to normal.

With our awareness of safety, security, alcohol and many other exciting topics rejuvenated, the obligatory 874 hours of mandatory training was complete and it was time to crack on with some maintenance! Under the watchful eye of our Supreme Leader...WO1 Sean Weber – RASM 2 CAV REGT, the team commenced preparations for the first field activity of the year – Exercise SIDON.

Assisting the RASM this year were the squadron ASMs: A SQN – WO2 Ron Novello, B SQN – WO2 Andrew ‘Wombat’ Smith, C SQN – WO2 Shane Porter and SPT SQN – WO2 Andrew Reid.

The three integral SQN workshops took the lead for their dependant equipment, ensuring the highest level of serviceability and availability was achieved. With many long days and the much needed and appreciated support from General Dynamics, 3 CSSB and JLU-NQ, all equipment was ready to deploy.

Exercise SIDON was the first opportunity of the year for the Regiment to shake out, test their skills and start to develop the teams for the training year ahead. Support Squadron led the charge into the very wet battlespace this year, following a delayed start after some monsoonal rain.



*B SQN ASLAV Power Pack Removal – Ex SIDON*

Unfortunately, the combination of wet terrain and an unprecedented heat wave, movement was greatly limited during the exercise for SPT SQN, unless you were a Fitter Crafty. One in particular would move at such a great pace, until he met his match in the form of an open Protected 45M door. This resulted in a clean knockout, broken nose and a trip to Townsville Hospital. In true RAEME fashion though, he was ready to go back out field a few days later, with only a small issue of him forgetting where he parked his car.

The mighty B SQN with their ASLAVs and C SQN with their M1A1 MBTs would be the next to enter the fray on Ex SIDON. Both SQNs over the next few weeks would qualify up to ATL 3, while the spanners were throwing all kinds of parts around through the day and night to keep everything rolling. A SQN missed Ex SIDON with the majority of the SQN conducting training and support tasks with the PNGDF.

Concurrently during Ex SIDON, a number of the tradies from 2 CAV and 3 CSSB completed the ASLAV Non-RAAC driver's course. Back on base, exported sessions of the ASLAV Crane and ASLAV Recovery course were conducted to qualify about 15 members across the Brigade. These exported courses were also joined by the Tank Hull, Tank Turret, AS4 Hull and ASLAV Turret courses to name a few.



*Recovery at work: B SQN ASLAV-R recovering a HTT that is recovering an M88A2*

April and May would see the Regiment deploy to the field again on Ex EAGLE RUN following a very short turn around. This provided some workshop members the opportunity to really step up and conduct some major maintenance activities in the field. An outbreak of COVID within SPT SQN resulted in a number of junior members filling job roles well above their worn rank. In true RAEME fashion, these lads performed brilliantly, well done all!

June provided some much-needed respite for what had been a very hectic first half of the year. This time gave the workshop a chance to catch up on maintenance and prepare for the major exercise of the year, a BG vs BG WARFIGHTER... 2 CAV (and A SQN 2/14) vs 3RAR (and C SQN and 3 CSSB and 3 CER and 3 CSR and probably a bunch of other people I forgot). Either way, 3 RAR lost... well that's our opinion!

WFX would lead to many funny and some not-so-funny stories, like this one from C SQN: So one Sunday at band camp (A.K.A. WFX)... the boys were making pancakes as you do on a Sunday before a big battle. A tank troop drove past the A1 heading away from the front line. No issue, pancakes were cooking. It was not till later that the boys found out, they were actually the lead C/S for the Battle Group for a good 3 hours or so. Don't worry, no pancake was spilled. Tip of the spear and FLOT (Forward Line of Tradies) as always hey lads?

With August suddenly upon us and the RASMs deadline for this article rapidly approaching, the next few months are shaping up to be a case of 'experiences may vary' at 2 CAV REGT. The B SQN workshop have consolidated with their squadron and other elements to form RCB 137 and will enjoy a lovely 3 month holiday in Malaysia. I can still hear the RASM screaming "10 tradies, the ORBAT says 2!!" While we're working hard on our 'cultural awareness', the rest of the Regiment have gone for another visit to one of North Queensland's best holiday destinations... Townsville Field Training Area.

In all seriousness though, the B SQN RAEME dudes have integrated with their RAAC colleagues to get a taste of jungle life and how to do fully sick grunt stuff. This is a great opportunity to build strong connections and networks with the people we support back home. For the most part, they are all super excited... to go to Boaties.

As for the rest of the Regiment, C SQN and some of SPT SQN will conduct another round of SEA SERIES activities with the Navy. A SQN will continue to fight the good fight, continuing to maintain their equipment in preparation for upcoming ASLAV Gunner and Non-RAAC ASLAV Crew Commander courses.



*Recovery at work: B SQN ASLAV-R recovering a HTT that is recovering an M88A2*

While all of this is going on, our beloved General Dynamics members working in the main workshop and over at C SQN will continue to do the outstanding job that they do. These guys really are the nucleus of the 2 CAV REGT maintenance organisation. The production output they achieve each week and their extensive platform knowledge is invaluable. Without them, maintenance in 2 CAV as we know it would fall over. A massive thanks on behalf of all the 2 CAV tradies to Brendan and his team.

As the year winds down, the inevitable workforce shuffle will occur. Old hands will leave and new blood will come in. For those leaving, good luck with everything your future careers and lives may offer, it has been a privilege to work with all of you. To the new guys, welcome to the team, get keen!

I look forward to what 2023 will bring!  
Courage!

***Arte' et Marte'***



---

## 3rd Combat Engineer Regiment

### LT Andre Coppenrath

#### Operational Support Squadron

2022 has been another high tempo year for Operational Support Squadron (OSS) in the provision of logistic support to the 3rd Combat Engineer Regiment. This has generated multiple opportunities for members of both the Logistic Troop and Technical Support Troop (TST) to enhance their technical expertise and SME knowledge through supporting Exercises and Activities at the Squadron, Unit and Brigade level. Beyond Unit training, OSS has enabled Op Flood Assist, BDE WFX and Sea Series. At a Unit level, we have been supporting the 3 CER DINGO Series and our International Engagement (IE) activity with PNG, Exercise Olgetta Warrior. To best prepare our supply, transport and maintenance elements to assist the Unit and wider BDE, the Squadron has also conducted internal training through the ATLAS Series which has encompassed amphibious training, field training and live fire practices. The TST manages a large, broad and aging equipment fleet to support the full spectrum of Combat Engineer operations. Despite its small size of 21 personnel, the TST has performed very well in meeting the necessary maintenance and governance requirements to sustain the Unit. Below is an overview of the activities undertaken by TST this year and the valuable experiences provided to our personnel.

#### Exercise DINGO FURY

Dingo Fury was the first exposure of the year that OSS have to field craft. In preparation for Dingo Fury, TST had been conducting field craft lessons during the normal battle rhythm of the Squadron. The week of battle preparation saw more of a focus on individual to section sized field craft and also a crawl/walk implementation of logistics training in the form of FRTs and DPs. With the culmination of basic field craft and logistics activity lessons, TST was ready for Dingo Fury.

Unfortunately, Dingo Fury was reduced from a two week activity, to a five day activity due to the hot climate systemic to North Queensland. The plan rapidly changed to ensure the safety of our members whilst also achieving the desired training outcomes. As the Combat Engineer elements infilled into the training area for Dingo Fury, an FRT was deployed forward of the CSS Main Body, with a few elements of supply, to establish a logistics node to support their activities.

Once the CSS Main Body arrived in the training area, along with supporting the Combat Engineers activities, TST also conducted more run style field craft and logistics training. This incorporated section sized clearances, navigation, urban clearances and VCPs. TST assisted with the conducted of DPs providing maintenance support to the Combat Engineers when needed. The requirement for repair and recovery was reduced in scope due to the reduced timeframes and reduced staffing, however, the tradesmen still found themselves busy working on radios, generators and weapons systems as problems came up.

#### Operation FLOOD ASSIST

While Dingo Fury was occurring, concurrently back in barracks, 3 CER was preparing for Flood Assist. At this point in time, being early March, 3 CER was still online as the Brigades High Risk Weather Season (HRWS) Contingency Force Element (CONFE). As the floods started to get worse in the South-East Queensland area, all facets of the Army were called upon for assistance. When this balloon went up, 3 CER was responsive and the Ready Battle Group (RBG) was raised comprising of a Squadron sized Engineer Element, which was sent south to Lismore to aid their local community.



TST sent out an FRT comprising of two VMs, a TECH ELEC and a FIT ARMT to assist the RBG. The RBG was off to a rather turbulent start as one of the PMVs went down soon after heading out the Main Gates of Lavarack Barracks. Due to the FRTs position in the convoy, they were unable to provide light grade maintenance and triage the vehicle on site. The PMV was recovered back to 3 CER WKSP for repairs. This did not have a significant impact on the RBG and the rest of the convoy was able to push forward to Lismore to conduct humanitarian relief tasks.

In Lismore, the FRT integrated quickly into the local community assisting relief tasks where necessary, performing maintenance on a range of C-vehicles, small engines such as chainsaws and 16 kVA generators. The FRT, and wider RBG, also set up camp in the local flood area, experiencing firsthand what it felt like to adapt to flood waters.

### **Exercise ATLAS RAGE**

Once Dingo Fury and Flood Assist concluded, TST was back into the routine battle rhythm of the barracks environment. The next major exercise for TST was the amphibious exercise; Atlas Rage. For the last two years, OSS has been running Atlas Rage at Cowley Beach Training Area, leveraging off 35 Water Transport Squadron and 16 Combat Engineer Squadron to do some combined amphibious tasks and training. Atlas Rage provides an opportunity to not only further develop logistics SME skills in the field environment, but also offers an exposure to amphibious style training.



The first few days of Atlas Rage were spent learning the theory behind logistics operations when deployed in theatre, which proved to be insightful from the feedback given by the tradesmen. TST then started conducting FRTs and DPs in the field environment as these vital logistics tasks were missed during Dingo Fury. Due to the heavy rainfall that occurred within the CBTA region, many of the beaches and routes in the training area were not open for vehicles to utilise. This resulted in TST conducting dismounted activities, with a focus on DACC serials to add an additional layer of complexity.

Towards the end of the training exercise, TST was able to conduct amphibious training serials with 35 WTS and 16 CE SQN. 35 WTS had two LCM8s off the shore of CBTA conducting land to sea embarking serials as part of their annual amphibious training serial. Members of TST were given the opportunity to embark 40Ms onto the LCM8s, which proved to be a challenging experience. Concurrently, members of TST were also conducting watermanship tasks with members of 16 SQN utilising the zodiacs and OBMs to perform drills.

### **Exercise BROLGA RUN and Exercise BROLGA SPRINT**

The 3 BDE WFX Brolga Run and Brolga Sprint saw the Combat Engineer SQNs attached to 2 CAV and 3 RAR Battle Groups as part of the Blue and Red Force. However, during the conduct of Brolga Run, the Engineer Element had a few issues with the Dry Support Bridge (DSB) when conducting rehearsals and prelim shake-outs. A request was sent back through to TST HQ for an FRT to provide maintenance support. A few VMs had conducted the DSB maintainer course early in the year and were prepared with the necessary tooling and parts required to repair the DSB. The efforts of the FRT enabled the Engineering Element to successfully deploy the DSB for follow on actions within the Battle Group.



TST was also able to offer up a Recovery Mechanic, CPL Colin Drewitt, to 1 RAR as part of Sea Series. CPL Drewitt got the opportunity to watch the PMVs embark onto LHCs at the CBTA. CPL Drewitt was part of the dedicated recovery capability and although recovery tasks were few and far between, he was able to experience what a logistics element can expect when conducting amphibious operations.



While these two major Exercises were taking place, an FRT was also sent out from TST to assist with the 5 AVN led Exercise Helicon Look. The work that was put into making sure that the Striker were serviceable and postured to support Helicon Look was especially notable from the tradesmen in TST. The Striker is part of our Combat Rescue Troop and is the primary firing fighting vehicles that support tasks around air strips in RAAF bases or airports. With the VMs having done the Striker maintenance course prior to the Exercise, they were all over the necessary requirements to see the Striker online to support tasks.

### **Exercise OLGETTA WARRIOR**

Members of 3 CER receive the opportunity to go to PNG as part of Olgetta Warrior, and as part of the RAEME element sent to PNG, tradesmen can expect to assist with maintenance support to the Forward Operating Base, assisting with Engineering tasks when available and running maintenance lessons and training for members of the PNGDF. The overall consensus from tradesmen is that the international engagement activity is a valuable experience to work with partners, swing spanners and marinate in a rich culture that has deep military ties with the ADF.

The initial planning of Exercise Puk Puk, which is part of Olgetta Warrior, saw a busy period for the TECH ELECs and Fitters within TST. They worked tirelessly to ensure that the equipment required for the Exercise was deployable, that the electrical planning was feasible and that all the necessary parts and equipment was readily available for any lessons or training they planned to conduct. The efforts of the tradesmen were highlighted by the Combat Engineers and the Unit as a whole as their efforts enabled the Combat Engineers to get out the door.

---

## 3rd Combat Signal Regiment Workshops

|                    |                        |                    |
|--------------------|------------------------|--------------------|
| 3 CSR workshop is- | WO2 Martin DeHaan      | SGT Luke Gullison  |
|                    | CPL Daniel Moon        | CPL Ash Lamprey    |
|                    | LCPL Dillon Kopacz     | CFN Joshua Wells   |
|                    | CFN Benjamin MacKenzie | CFN Joseph Barra   |
|                    | CFN Andrew Rawlings    | CFN Suhas Sharma   |
|                    | CFN Kris Kelly         |                    |
| RPS-               | CPL Paul Asmussen      | PTE Tanika Martin  |
| Late arrivals-     | CPL William Webb       | CFN Cameron Fisher |
|                    | CFN Mark Pelizzari     | CFN Bobby Cooney   |

OP Flood Assist got the year rolling for 3 CSR workshop, with the boys being asked to supply 2 members for our part. Supplying CPL Asmussen and CFN Wells with their floaties and buckets, we pushed them out the door and watched as they trundled off down to the pools of NSW for a quick paddle.



The humanitarian works didn't stop there, with steady-handed CFN Rawlings and his newly adopted son, CFN Fisher, contracted by a local veterans centre to build a bike rack for local wandering MAMILs. The project was a success and provided a great photo op, and a fantastic excuse for a sneaky 'PT session' to ride out for a coffee every now and then.

The first exercise of the year to support the unit was up to Cowley Beach, led by the award winning CPL Moon. The team had a fantastic time I'm sure in the widgeon black conditions. With cooling down being the chief concern for most of the regiment, sleeping in air-conditioning ducting provided a welcome relief from the heat.



OSS then ventured north to Cape Tribulation for some relaxation and change of scenery. With an open itinerary, folks were free to take in the sights of the far north, chill out in a hammock on the beach, put a line out, or swim in the local watering holes with some reptiles. The workshop brought its cooking expertise along for the trip and made some delicious roasts on the open fire, as well as a nice crab caught by hand by CPL Webb. With minimal injuries and no one lost or missing digits (barely), the team reluctantly headed home.

The first exercise up to High Range provided a few exciting moments, with one of the 40M's getting bogged down in a creek crossing. Using the FRT PMV to tow the trailer back out one side, and another vehicle to help the stranded 40M across the crossing, the two were reunited. The second exercise up the hill (Bert's Run) provided a few relaxed days watching over the all-important 60kVa's. This gave the boys some time to start a few engineering projects to pass the time, resulting in a few contacts springing up within the position. With the FRT taking some well-directed slingshot fire from 'friendly' positions, and the cam netting proving to be ineffective concealment, barrages of Mentos, chocolate squares, and the occasional sacrificed M&M were unleashed upon the enemy. After a few casualties in equipment and men on both sides, and supplies of ammunition running low, a ceasefire was eventually called.

The workshop showed up dressed in style for the 3 CSR Birthday Dinner, with the stale brown tie omitted for the much more dashing RAEME bow-ties and cummerbunds. With the addition of a 'few' drinks, the workshop were also ready to brandish their matching RAEME headbands. Caught unawares, and only dressed in green envy, the sigs conspired (and failed) to steal some esprit de corps.





---

## 9th Force Support Battalion - TST



We had many activities scheduled for the 2022 calendar year, firstly we had members involved in the Floods assist across Brisbane, South East Queensland and Rural NSW, where our members went out into the communities around Ipswich and assisted with their recovery and removal of flood effected items.

9FSB WKSPs identified many events that we were that involved with in 2022, however the events that made the cut are the sub unit's contribution to ANZAC day service in a remote Queensland town of Thargomindah, where a small team from 9th Logistic Support Company (9LSC) were sent to represent the unit.

Plus the ACAAP infill which is the biggest activity at 9FSB incorporating, five weeks of constant driving with the odd stop off to Band-Aid fix the fleet to limp them home.

9LSC had a formal company parade, followed by a dining in night that was conducted in the Main workshop in RAAF Amberley; in celebration of commissioning the new sub unit emblem. The Dining in night included the close maintenance platoons from Darwin and Townsville. The event was planned and orchestrated by the PL Comd LT Ralph Goad, it was carried out seamlessly with minimal issues.

### **Thargomindah – CFN Ashley Doyle.**

ANZAC Day duties were conducted a little differently by members of 9FSB Amberley in 2022. A suggestion came from BHQ that members from 9LSC take part in a road trip to a remote country location of Queensland, and take part in an ANZAC Day ceremony. The CSM of the Company, a self-confessed country boy, suggested the small town of Thargomindah, QLD, 1000km West of Amberley. Preparations quickly began, and volunteers were asked to put their hand up. In all, 10 members were pencilled in for the trip, including the Platoon Commander and ASM of Technical Support Platoon. Details were finalised, and the trip was set to go ahead.

We set off for the trip a couple of days early considering the length of the drive. The idea for the trip, both there and back, was to stay overnight at a different small country town to meet the people and to support the local businesses. This was obviously appreciated as the hospitality we received at our first stop in Bollon, QLD, including food and accommodation, was amazing. We were thanked over and over again for stopping over on a way through and it was great to see the appreciation. We were well fed and rested and then headed for our destination early the following morning.

The remainder of the drive was an eye opener for many of the members, as they had never driven on such remote country roads. We all took in the scenery and soon arrived in Thargomindah. Once again, the hospitality we received was awesome. The accommodation was very nice, and the food at the local restaurant was delicious, reminding everyone of their grandmother's home made cooking. It was an early start the following day and we were tasked with taking part in a Dawn Service Catafalque Party, followed by another at the 10am service. It seemed like the entire town turned up to both services, and it was great to see and meet many local and travelling veterans. There was a parade down the main street at the 10am service in which the kids from the local school took part; including a couple of them on horses, of course. All the kids loved it, but not as much as they loved talking to us about our rifles. At the conclusion of the service, a lunch was provided free of charge for everyone in the community back at the local pub. Traditional ANZAC Day activities ensued, including 2UP, with all money lost being donated to the local school. All the



*RAEME Members from 9LSC marching ANZAC Day*

locals showed us a lot of respect and it was very nice to see the amount of appreciation they had for our efforts to go all the way out there. It was an amazing day and we all felt a great deal of pride that we were able to bring a lot of happiness to a small Australian community.

At the conclusion of the trip, we all had the opinion that things like this should be done more often. Cities and larger towns should not be the only places that get support of current serving ADF members on significant military dates. The pride and appreciation that we felt was proof that it is worth the effort to provide small towns with services that bring an entire community together. I for one will be suggesting small town support and putting my hand up for any opportunity for the rest of my career.



*CFN Doyle (front right) and CFN Hergenhan (rear left) part of Catalfalque party*

## ACAAP 9FSB WKSP – CPL Andrew Smith.

AACAP infill, enabled the alphas of the WKSP to finally get out and stretch their legs, an FRT consisting of two GMVs, 40 M with maintenance module and the glorious 45M.



*45M and GMV central Arnhem Hwy*

The trip started well having just left the gate we were informed of a HX77 breakdown halfway up the Toowoomba range, this ended up being a gargantuan task of recovering, unloading and swapping out the stricken vehicle.



*Unloading 6ESR HX77 on central Arnhem Hwy*

After sorting out the lads and getting back on the road we continued to make our way north to Arnhem Land, collecting the casualty vehicles as we went. After six long days we made it to RAAF Tindal just in time to watch the truckies after their long strenuous drive go for a swim and visit the local attractions, while the RAEME boys worked tirelessly fixing the issues collected along the way. The trips in and out of East Arnhem Land were dusty and rough proving just how hard this country is on European vehicles, most standing up to the task with only a few issues.





*45M and GMV central Arnhem Hwy*

On the return journey of one of the runs east we lent a hand to 6ESR and helped recover one of their HX77s who had seemed to have misplaced a tyre, easy work was made of it and the vehicle was recovered without issue.

The local RAAF Tindal MEOMS workshop were kind enough to let us use their facilities which made any repairs or scheduled maintenance a lot more comfortable for the boys instead of doing it in the red dirt. So after cleaning out the Tindal Boozer it was time for us to leave, we loaded up and started to head south again limping the beaten up fleet back to Amberley to refit, fix and beg CASG for parts then do it all again in October.

# AWARDS

## 2022 Craftsman of the Year (COTY) Recipients

### National CFN of the Year

|                          | Rank & Name          | Unit       |
|--------------------------|----------------------|------------|
| ARA                      | CFN Hugh Polson      | 5 CSSB     |
| ARes                     | CFN James Doherty    | 13 CSSB    |
| Regional CFN of the Year |                      |            |
| South Queensland Region  | Rank & Name          | Unit       |
| ARA                      | CPL Michael Bond     | 2 CER      |
| ARes                     | Nil Noms             |            |
| North Queensland Region  | Rank & Name          | Unit       |
| ARA                      | CFN Tyler Wykman     | 5 AVN REGT |
| ARes                     | Nil Noms             |            |
| VIC/TAS Region           | Rank & Name          | Unit       |
| ARA                      | Nil Noms             |            |
| ARes                     | CFN Anton Golacki    | 4 CSSB     |
| NSW Region               | Rank & Name          | Unit       |
| ARA                      | Nil Noms             |            |
| ARes                     | CFN Hamish Von Prott | 5 CSSB     |
| SA Region                | Rank & Name          | Unit       |
| ARA                      | CFN Jayke McNellee   | 16 REGT    |
| ARes                     | Nil Noms             |            |
| NT Region                | Rank & Name          | Unit       |
| ARA                      | CFN Rhys Dutton      | 1 CER      |
| ARes                     | Nil Noms             |            |

---

## 2022 Corps Awards

| Junior Regimental Award (Sub 2 SGT)    |            |
|--|------------|
| Rank & Name                            | Unit       |
| CPL Ian Pascoe                         | ASEME      |
| Regimental Award (WOLOG)               |            |
| Rank & Name                            | Unit       |
| SGT Amanda Nelson                      | 5 AVN REGT |
| Artificers Award (Sub 4 WO)            |            |
| Rank & Name                            | Unit       |
| SGT Scott YOUNG                        | LWC        |
| BRIG HLC Martins OBE Award (Sub 4 SGT) |            |
| Rank & Name                            | Unit       |
| SGT Craig Beard                        | SASR       |
| LT Peter Jennings Award (LOBC)         |            |
| Rank & Name                            | Unit       |
| LT Edward Healy                        | 2 CER      |



---

## RAEME Birthday

### AWMA RAEME 80th Birthday – Contributions from LT McAlpin, LT Smith and WO1 Maggenti

As home of the Craftsman, ASEME hosted the 80th RAEME Birthday celebrations for the Albury Wodonga Military Area. This gave the opportunity for all in attendance to celebrate the proud history of the Corps through a variety of activities, in what was a warm and sunny day on the Vic/NSW border.

The day started with a parade at South Bandiana, featuring both staff and trainees. After several days of lead-up training, all personnel involved were well drilled on the expectations involved with representing both their Wings, the School, and the Corps as a whole.





ASEME was fortunate to have DG Land Worthiness, BRIG McLachlan review the parade, with DGTRADOC, BRIG Ryan also in attendance for the event. The Kapooka Band were excellent in providing the instrumentals for the parade, with their time greatly appreciated amongst their busy schedule. This was the first full school parade that ASEME has held in some time, with the efforts of those involved in the planning and execution really valued.

Following the parade, all personnel moved to Latchford Barracks for the less formal events of the day. Food stalls organised by the ASEME RTF, along with Blackwoods Trade Stalls were present for the afternoon, further adding to the celebrations. LTCOL Troy Wilson, CO ASEME addressed those in attendance, where awards and promotions were presented. This was a great opportunity for the recipients to be recognised by the wider RAEME community.



*ALTC Group Achievement Award awarded to CATW*



*CPL Kelly receiving DLSM*



*Former CAPT Wood being promoted to MAJ Wood*





*OC VTW MAJ Arnold receiving  
Champion Wing Award*



*Outgoing CO ASEME LTCOL Troy Wilson  
being presented gift from ASEME*

The traditional RAEME Potted Sports filled in much of the afternoon for those with a taste of competition. ASM ASEME organised the Spanner Throw, Tug-o-War and a contemporary take on the Billy Cart Race, which included an adventurous water crossing for those involved. CFN Ivaschenko of VTW was the winner of the inaugural Wooden Spanner (made and donated by WO2 Wayne Robinson) with a spanner toss of 11.80m.

RAAF-STT were the surprise inclusion for the Tug-o-War, finishing 3rd amongst the teams. The final saw a close contest with ACW coming out victorious over EESW, 2-1.



*Spanner Toss*



*Tug-o-War*



*Tug-o-War*



Finally, the Billy Cart Race provided excellent entertainment, with VTW coming home for a resounding victory. The other places were much closer, with EESW edging out ACW over the finishing line.



*Billy Cart Racing*

Each of the sports proved to be a big success, with all members coming together around the cake to sing a very joyous Happy Birthday to the Corps.

The final event saw ASEME host the first ever Robot War. Eight teams competed for the coveted Robot War trophy. Over the course of the year teams had to design and build their own robots from scratch in preparation for the big day. In addition to ASEME's seven teams; RAAF-STT also entered a team.

A knock out tournament saw electrifying action before a champion emerged, ASEME's very own Robot, R2C2 taking home gold. The event was live streamed with a recording available on ADELE for any interested parties. ROBOT Wars proved a promising new tradition to ASEME RAEME Birthday celebration and is intended to be carried on into the future.

The day proved to be a great celebration of RAEME's 80th Birthday, allowing all that attended to experience the mateship and Espirit-de-Corps that makes RAEME the premier Corps within Army.



*Viewing of Bot Wars which was live streamed*

---

## Northern Territory RAEME Birthday

### Darwin RAEME 80th Birthday – scribe LT Jansan

101 FD WKSP was excited to host the 80th year of RAEME celebrations on Robertson Barracks for the Darwin region this year. With the clouds holding off and no sudden storms, everyone enjoyed a beautiful sunny day full of activities. After a welcoming brief the day launched with a competitive touch football competition hosted by 1 CSR. The grand final brought together 5 RAR and 1 CSR for a close game which saw 1 CSR claim this year's trophy. 1 CSSB brought out the tug of war ropes and the crowd formed around to cheer on their Unit. The United States Marine Corps maintainers put in a great effort to see them beat 8/12 REGT RAA, but the final came down to 1 CER and 1 CSSB. After a fierce best of three, 1 CER came away with the win.



5 RAR set up a very entertaining CoC relay providing much laughter from the spectators as the competitors ate, skipped, spun and weaved their way to the end of the course. There was a very controversial finish but 1 CER claimed their second win of the day. The spanner toss and axe throw rolled throughout the morning with 8/12 REGT and USMC respectively finishing as the leaders of those events. The final activity before beers was the billy cart push race. The Units had created a variety of unique carts and everyone was

enthusiastic to see the race begin. The race was on and saw a 'team's change' half way through then despite the chaos and some collisions, 1 AVN made a clean break to cross the finish line first.

Once all the activities finished the Unit rivalry gave way to mates catching up with beers and a BBQ. The NT CFN of the year was presented by the Brigade Commander to CFN Rhys Dutton of 1 CER. Mark Barnes (Ex ASM 1 CSSB) was farewelled from service and the BDE ASM WO1 Simon Butler was commissioned to Captain to take his experience to HQ 7 BDE.



After a rowdy rendition of the song Happy Birthday, the cake was cut and \$10,000 worth of raffle prizes were drawn giving many happy people more than memories to take home. Throughout the day the trade stands provided free merchandise and an opportunity for the Corps members to see what the tool stores around town could provide. The day proved to be a great celebration of the Corps 80 years where all who attended were able to enjoy the mateship and Esprit-de-corps amongst those in the current Darwin Units and alongside previously serving members.





## Farewell

### Warrant Officer Class 1 Matthew John Jung

WO1 Matthew John Jung retired from full-time service in the Australian Army after 30 years of service. He was farewelled from the 3rd Combat Engineer Regiment on 15 Sep 22 after three years as the Artificer Sergeant Major in the Operational Support Squadron. He has commenced a period of long service leave and is starting a new journey in the private sector allowing him to be closer to his family.

Matt enlisted at the early age of 18 as an apprentice and has since had a colourful posting history all over Australia and overseas. He lives and breathes the maintenance culture that enables our Defence Force to operate. He is a passionate tradesman and soldier that worked hard for the Army, his mates and his subordinates. He sought to inspire the next generation of tradesmen through the mentorship of technical mastery and held mateship, honesty and respect in high regard.

Matt is well regarded by all those who have had the pleasure of working with him. He does not shy away from the honest conversation that ultimately lead to positive changes. He has helped shape the Army as we know it today through his work at CASG and has helped shape hundreds of soldiers that have been under his command in general, close and integral Units.

Matt not only took his duty as a maintainer and a soldier seriously, but he is also took his job role as a loving husband and a proud father seriously as well. He found great comfort in taking his family out fishing and often sought to spread this fishing culture in the WKSPs he was a part of. Being a CFL, Matt also enjoyed playing a variety of different sports which may have been to his detriment in his elder years.



Matt's final day in SERCAT 7 will be 03 May 22. He relocated to Cairns during his long service leave, to closer to his spouse, Tracy, and their family. We wish Matt all the best in his future endeavours and hope to see him again at a RAEME gathering or two.

L-R back row: CFN Rayne Madden, CFN Zachary Bryson, CFN Luke O'Loughlin, WO2 Brian Strow, WO2 Jason Ballard, WO1 Ian Downey, WO1 Sean Weber, WO1 Dwayne Maggenti, WO1 Dean Goninan, MAJ David Vagg, SGT Kristopher Barber. Left of table: SGT David Pool, LT Andre Coppenrath, CPL Jess Rowe, CFN Mark Bullivant, CFN Tyrone Maull, CFN Cody McKinnon. Right of table: CFN Zack Jorritsma, CFN Christian Cartwright.



---

## RAEME Association of Tasmania (RATS)

On Sunday 11 December 2022 the RAEME Association of Tasmania held their RAEME Birthday, AGM and Christmas drinks all rolled into one. The function was well supported with approximately 50 members attending. In addition, members had the opportunity to view the recently completed workshop facility at JLU(V)-H. There was considerable shed envy observed from the 30 members that took advantage of this opportunity. I would like to personally Thank WO2 Peter Barret and Mr Shane Rollins for their time in guiding our members through the facility it was greatly appreciated.



*RATs touring the new JLU (V) – H Workshop – Group 1*



*RATs touring the new JLU (V) – H Workshop – Group 2*

As a result of the AGM the following positions were filled:

- |   |   |
|---|---|
| • President – Mark Wilson – Retained            | • Historian – Mr John Lennox – Retained   |
| • Secretary – Russell “Shirly” Clark – Retained | • Merchandise Rep – Mr Mick Moran         |
| • Treasurer – WO2 Peter Barret                  | • Asst Merchandise Rep – Mr Shane Rollins |
| • Asst Treasurer – Mr Shane Rollins             | • 6LSC Rep – TBA                          |

AAS Rep Recently two of our members were awarded the Federation Star, as an association we are of the firm belief that such service should be recognised and celebrated! As part of our celebrations, we recognised the five members of the RAEME Association of Tasmania who have reached this auspicious milestone:



*Our Federation Star recipients*

- Mr Bob McKerrow – 50 years
- Mr Bob Keenan – 47 years
- WO2 Peter Barrett – 44 years
- CFN Nigel Fox – 42 years
- Mr Peter McDonough – 40 years – Absent.



*Shane Rollins joining our Life Membership*



*Cutting of the cake – L/CPL*

Finally, Mr Shane Rollins was presented with his Honorary Life Membership to the RAEME Association Tasmania recognising his efforts and contribution for 20 years of service to the Association.

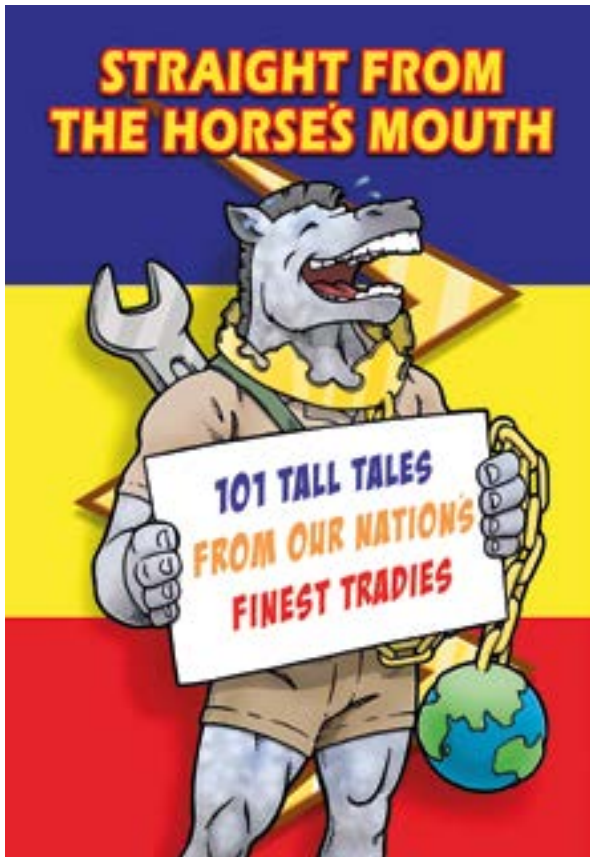
On a final note I'd like to thank the RATs for their continued support, we may have the oldest average age of any association; however, we are a welcoming bunch and if any of our brothers and sisters from other associations are in the area don't be frightened to drop us a note through the RAEME National Website or through our Facebook page RAEME Association Tasmania.

Travel safely over the Christmas - New Year period and hope to see many of you at next year's various reunions.

---

## Straight from the Horse's Mouth

By Ian Cook and Peter Shefford



Who would win in a tug of war between an Armoured Recovery Vehicle and an Armoured Dozer? Which unit failed to consider time-zone differences when planning a Melbourne Cup function, hence they missed the race? The answers to these questions and more can be found in the first official RAEME Humour Book, *Straight from the Horse's Mouth; 101 Tall Tales from our Nation's Finest Tradies*.

One of the strongest strands in RAEME DNA is our general good humour. We can, and often do, laugh at ourselves but we also bond through sharing a laugh over whatever situation we find ourselves in. The funny stories in *Straight from the Horse's Mouth* were compiled by two ex-Crafties, Pete Shefford and Ian Cook, to capture some of those good times.

All profits from the sale of almost 600 copies of the book were donated to the National RAEME Association to support the betterment of both serving and retired

members. This was made possible due to the very generous sponsorship of the project by Companies and Associations with close ties to RAEME.

Just as the memories continue to be built across RAEME, future editions of *Straight from the Horse's Mouth* are being planned. All members are encouraged to send any funny stories or images from their service to [FunnyStories@raeme.com](mailto:FunnyStories@raeme.com) so they can be considered for inclusion in the next edition. The golden rule for all stories is they don't have to be true; just believable. Send your stories today!



# Vale

## Vale' 2021/22

### December 2021

Nolan, Allan  
Linwood, Geoff

### January 2022

Wikman, Brian  
Golder, Warren  
McKechnie, Ian  
Jacobs, Geoffery

### February

Shirley, Kevin  
Beatty, Kenneth  
Daley, Ned  
Cobbin, Dennis

### March

Kent, Barry  
Mills, Brian  
Parkinson, 'Butch' Michael  
Maloney, 'Speed' Frank

### April

Sutherland, Rodney  
Chisnell, 'Jim' James

### May

Simpson, 'Simmo' Jeff  
Lidster, Paul

### June

Nowak, 'Sam' Wladyslaw  
Courtney, Jock

Hawke, Darryl  
Stear, 'Clyde' Trevor

### July

Tinson, 'Jace' Jason  
De Visser, 'Rob' Robert  
Rosser, 'Mick' Michael  
Digweed, John

### August

Howard, 'Bluey' Terry

### September

Cullinan, 'Stretch' David  
De Jong, 'Peter' Petrus  
Juers, 'Don' Donald  
Green, 'Matt' Matthew

### October

Lloyd, 'Mal' Malcolm  
Kop, 'Dick' Richard  
Ford 'FJ' Peter

### November

Tucker 'Danny' Dennis  
Court, Robert  
Wesley, 'Bob' Robert  
Weaver, Paul

### December

McPherson, Tex  
Tubbs, 'Tom' Thomas William  
Shaw, Alan James

### '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 varies greatly.

