



# Australian Sapper 2023



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Australian Sapper is the annual magazine of the Royal Australian Engineers, published by authority of the Head of Corps.

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Front cover: SPR Beth Curtin and EDD Morris on the Basic Dog Handlers Course at SME

Rear cover: 20 EOD disposal of a U.S. 500lb World War II bomb found in Nauru

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LCPL Logan Spark speaks with Mark Donaldson VC during a visit to Australian personnel supporting OPERATION KUDU

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# HEAD OF CORPS FOREWORD

## Brigadier Michael Say, DSC

Fellow Sappers past and present, as Head of Corps I am honoured to introduce the 2023 edition of the “Sapper Magazine” - a fantastic publication that captures the significant events and achievements of the Corps. The magazine incorporates a snap shot of the collective efforts of the Corps – it is an important chapter demonstrating the impressive character of our Corps, the value Sappers provide to our Army, the Defence Force and the Nation.

The magazine provides an overview of the significant achievements of RAE units, both domestically and overseas – exemplary service that further defines what it means to be a Sapper in the Australian Army and reinforces the well-established tradition of our Corps. I extend my sincere thanks to all involved in preparing this year’s edition – the stories of Sappers underpin the capability the Corps brings to both Army and the Joint Force in serving our Nation.



This year saw the wider release of the Defence Strategic Review.

The outcomes require Army to evolve and adapt. Our Army has been directed to “transform and be optimised for littoral manoeuvre operations by the sea, land and air from Australia”. Our Army will reorganise to 'train as we fight'. Some of the key outcomes are:

- our formations will become more specialised
- a smaller, but no less capable, combined arms fighting system
- accelerate the delivery of our long range fires and littoral manoeuvre capabilities
- reinforce the Division Headquarters to better command and control operations and establish permanent command relationships with the brigades that they will command on operations
- build an Army training system that is focussed, prioritised and can leverage and apply best practice across our Army
- increase the use of robotics and autonomous systems, artificial intelligence and quantum technology.

In considering how the Corps will work to support the implementation of the DSR, will be required to think differently about how we structure, train and provide support within combined arms team. The biggest challenge will not be the introduction of new equipment. Rather growing, retaining the people to operate this equipment. It will require significant investment as we think differently about how we recruit and train across the total workforce. We have an opportunity to challenge ourselves, think creatively and apply the incredible initiative and innovation of our people. One thing that will not change is that your knowledge, skills, experience and commitment are indispensable in achieving our mission.

The Capability Review for the Corps has been delayed, likely to occur in 2025. Throughout this process, I believe the Corps will be required to think differently about how we best support Army and the Joint Force. We will need to prioritise capabilities and make some difficult recommendations to inform decision-makers. This will necessitate a singular Corps position, that is sustainable and fit to meet future challenges.

As we move forward, I ask that you keep an open mind with a focus on the future. Whilst we need to be informed by history, the Corps must identify legacy capabilities that are no longer fit for purpose or irrelevant and prioritise capabilities to meet future challenges. The work can’t be undertaken by one or two people. It will require us all to contribute and your input will be crucial.

The articles in the magazine highlight the contribution the Corps continues to make within Army, the ADF and the community. In regards to our achievements – they have and continue to be significant with Sappers being in high demand. Our Sappers continue to demonstrate their versatility, skills and agility through extensive involvement in operations and international engagement. This has been clearly evident through OPERATION VANUATU ASSIST, exercises and exchanges with the Philippines, Indonesia, Timor-Leste, Fiji, Papua New Guinea and the US. Our works team continue to deliver multi-billion dollar whole-of-government projects across the Pacific. The Corps is making a significant contribution to shaping and building relationships within the region.

Last year I reinforced the importance of further testing and developing our foundation warfighting skills to be ready for the next challenge. I have been impressed at the focus of our teams to get back on the tools as part of the combined arms team and progress training levels and standards. We need to continue to fight to train and maximise every opportunity to develop the professional mastery of our junior NCOs and officers, providing an environment which enables our people to grow and develop is crucial for retention and ensuring our people have a positive lived experience – everyone of us has a part to play.

Sapper Week was undertaken from the 31st October to 4th November and included the Corps Conference, a Section competition and a number of other activities to celebrate and reflect on our history. I was also able to attend the 30<sup>th</sup> Birthday parade at 3 CER – a fitting activity for a unit which has been at the forefront of so many exercises and operations, both domestically and overseas.

Thank you to all those who contributed to the Sapper magazine – it is an important avenue to single out individual achievements and capture what our teams have been doing both domestically and overseas. I ask that you explore opportunities to contribute to the 2024 version.

Finally, the third theme of our Heritage and support to our Sappers. Since last year we have seen the passing of Her Majesty who was our Colonel-in-Chief since 26 November 1953. I have written to Army Headquarters seeking to have His Majesty assume the role and this is progressing through the approval process with a number of other Corps. For the cap badge, at present there has been no designs generated for an updated badge. AHQ have made enquiries to confirm the use of the Kings Cypher in Australia as well as consideration for modifications of the cypher as announced by Buckingham Place. The timeline for this remains to be finalised and the CRSM has the lead.

I am seeking your support for three points linked to our heritage: Corps funds, Amiens Bridge and Volume 5 of the Corps History. Contributions to Corps funds remain as issue if we want to be financially viable and continue to provide support to our Sappers. At the last Corps conference there was consensus that Senior NCOs and above had an obligation to contribute – as leaders of the Corps, I ask that you set the example. Planning for Vol 5 is ongoing with Brigadier Budd leading the development of a fundraising plan that captures both Vol 5 and the RAE Memorial planned for Amiens on the 24 Apr 2024. I again ask that you seek opportunities to contribute to these important projects.

Our people remain the centre of gravity within the Corps. Our Sapper Associations play a crucial role in this area. Once a Sapper, you are always a Sapper. I encourage all Sappers to join an Association well before they leave the Army as this can support camaraderie and interaction across the Corps outside of our units and importantly, provide purpose and connection for our people.

In closing, you should all reflect with pride and a sense of achievement for your role and contribution to Army and the Joint Force. However, the challenges ahead are varied and many, I therefore ask that rather than sit back and observe the problem, you identify opportunities where you can make a difference and ensure the Corps is well positioned for the future.

Thank you for what you do.

Follow the Sapper.  
Ubique

# CORPS REGIMENTAL SERGEANT MAJOR FOREWORD

## Warrant Officer Class One Matthew Dickson

2023 has seen many changes to the way Army conducts business from the reorganisation of the Training Enterprise to implementing the directed changes stemming from the Defence Strategic Review.

The rapidly changing operational environment and geographical spread of Army's workforce has seen an increased strain on Army's training system to deliver capabilities and meet Government objectives.

We are already seeing that Army will need to prepare more teams for the joint force, for more tasks, in more places, more often. While the existing Army training system has served us well, it is not set-up to meet this challenge as more is demanded of our Army and our people.

We always hear that there are never enough Sappers and that remains the case. As we continue to develop the RAE response to these challenges, we will need to do so without any significant growth in numbers. I believe that as a Corps we need to consider new ways to achieve the desired outcomes. The Training Enterprise is making some headway in defining better training solutions including increased leverage of external providers and rethinking the management of RPL/ RCC.

Our next big step needs to be prioritisation of capabilities, understanding which capabilities need to be put on hold and determine how we shelve capability but maintain the knowledge for future use. I believe we also need to critically look at the employment of a generalist military engineer verse specialist in capability. Can we continue to train all combat engineers with a broad set of basic skills or should training be different dependent on the supported BDE/ Battle group.

There are big questions to be answered. One of the ways everyone can have a say is to enter the COLONEL AHMAD MOSTAFA Writing Prize. Topics should be centred on new thinking about how the Corps of Royal Australian Engineers will tackle the diverse and difficult security challenges of the 21st century. No issue is too big or too narrow as long as it aims to make the Corps, Army and Joint Force stronger. Speak to your chain of command for entry details.

As my time as the Corps RSM draws to a close I'd like to welcome WO1 Russ Peel who takes up the role of your Corps RSM in 2024. As for myself after a period of leave, I'll transition to semi-retirement and remain connected through reserve roles. I wish you all the very best for the future.



# ROYAL AUSTRALIAN ENGINEERS 2023 AUSTRALIA DAY AND KINGS BIRTHDAY AWARDS RECIPIENTS

*“Congratulations to the outstanding Australians recognised in today’s Honours List. Recipients have made substantial contributions and had a significant impact at the local, national or international level. Some are volunteers, others have had a remarkable impact in professional roles – many have done both. They are all inspiring and their service is valued by us all,”*

- Governor-General of Australia

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

**Brigadier Hugh Walter MEGGITT CSC.** For exceptional service to the Australian Defence Force in capability development, modernisation and diplomatic relations.

## BAR TO THE CONSPICUOUS SERVICE CROSS (CSC AND BAR)

**Colonel Amanda Alice JOHNSTON CSC.** For outstanding achievement as the Director Preparedness, Joint Collective Training, Resources and Gender Advisor - Army within Army Headquarters.

## CONSPICUOUS SERVICE CROSS

**Captain Lachlan William ATTARD.** For outstanding achievement in the performance of duty as the Project Engineer and Site Lead for the Cook and Tiroas Barracks infrastructure project in Vanuatu from August 2021 to May 2022.

**Lieutenant Colonel J.** For outstanding achievement as the Commanding Officer of the Special Operations Engineer Regiment and in support of the development of counter weapons of mass destruction capabilities for the Australian Defence Force.

## CONSPICUOUS SERVICE MEDAL

**Major Brent Alexander DOYLE OAM.** For meritorious achievement and service as Regimental Sergeant Major Training and Doctrine.

# 1ST COMBAT ENGINEER REGIMENT

## Lieutenant Colonel Travis Day

2023 provided the Sappers, soldiers and officers of 1 CER an opportunity to reflect on the Regiment's proud history, whilst also preparing to meet future challenges. The Regiment continues to serve with distinction; whether on operations, working with international partners, training for war, or on the sports field.

On 1<sup>st</sup> March the Regiment celebrated its 30<sup>th</sup> anniversary. Battle PT in the monsoonal rain and a family day provided an appropriate setting to reflect upon the past, and to ensure that the current generation of 1 CER Sappers builds upon the legacy of those who have served before us.

Whilst 1 CER is proud of its past, it is equally excited about the future. 1 BDE is at the forefront of littoral operations, and the Regiment is ensuring that Army's Littoral Force continues to *Follow the Sapper*. 1 CER has already begun its transformation into a light and expeditionary force, that is capable of rapid deployment into the immediate region when required.

Another feature of 2023 has been 1 CER's focus on regional engagement. Soldiers and officers from all Squadrons have had the opportunity to engage at home and abroad with counterparts from Indonesia, Timor-Leste, and the Philippines amongst others. These opportunities are invaluable to learn from those who we will most likely work with in the future, and to better understand our immediate region.

Finally, the Regiment continues to work hard and play hard. 2023 saw the Regiment dominate the 1 BDE sporting and military skills competitions; being crowned the premier Unit after winning the BDE military skills competition, obstacle course, triathlon, basketball and volleyball. Regardless of squadron or role, all members of the Regiment can be justifiably proud of their achievements over the past 12 months.



1st Combat Engineer Regiment—30 years of Following the Sapper



# 1ST FIELD SQUADRON (MOTORISED)

## Major Peter Witcomb

The 1st Field Squadron has once again performed to an outstanding standard in 2023, benchmarking what the combat engineer capability in support of Littoral Operations will be as Army evolves to align to the changes identified in the Defence Strategic Review.

We began the year maintaining the 1st Brigade's Emergency Support Force, whilst also undertaking individual to troop level training. This included annual small watercraft, shooting, and demolitions requirements – with select members travelling to the School of Military Engineering (SME) to undertake Medium Girder and Improved Ribbon Bridge upskilling.

This period of training was rounded out with 1 Field Squadron representing the Regiment on ANZAC Day marching through the City of Palmerston. Anzac Day also saw members of the Squadron support the Anzac Shield Australian Rules charity match against the Northern Territory Police, Fire, and Emergency Service.



*Sappers of 1 Field Squadron, with Soldiers of the 1st Battalion, Royal Gurkha Rifles and Marines from the Marine Rotational Force - Darwin prepare an explosive charge during an urban breaching serial on Exercise PACIFIC KUKRI*

The Squadron enabled the 5th Battalion, Royal Australian Regiment (5 RAR) to train with elements of the Royal Gurkha Rifles and Marine Rotational Force – Darwin (MRF-D) on Exercise PACIFIC KUKRI at Mt Bunday Training Area. This saw 2 Troop provide fully dismounted combat engineer support to the Battle Group, 1 Troop establish a company-sized trench defensive position for a live-fire attack, the complete Squadron conduct a demolitions range, and the conduct of 24 section sized urban clearance scenarios which incorporated Light Urban Explosive Breaching.



*Sappers of 1 Field Squadron commence night operations whilst instructing on a small watercraft course for the 1st Brigade*

After clearing the Bunday dust from their souls, 1 Troop conducted integrated small watercraft and cultural immersion training with NORFORCE as part of Program VIGILANT. This further enhanced the Squadron's understanding of littoral operations and enabled cultural engagement with Traditional Owners. Concurrently, during the Brigade Exercise PREDATORS WALK, a mix of personnel staffed an Improved Ribbon Bridge that served as a Brigade HQ node, enabling the Brigade to continue to explore, evaluate, and develop prospective littoral capabilities.

The EDD Section conducted integrated training with the troops and was supported by SME to undertake their Level 4 Certification, passing without any retests required. They were further enabled by SME through the conduct of the Canine Tactical Care of the Combat Casualty course, which is currently in development. This training saw EDD Handlers and Medics from the 1st Health Battalion working together to develop the skills required to treat an EDD should a catastrophic injury occur, utilising the advanced canine medical simulator “Diesel”. The section also acquired two puppies, Gypsy and Steph, to support internal capability development. Whilst Gypsy was deemed unsuitable and rehomed, Steph has become Facebook Famous with over 30,000 engagements after the Australian Army page shared her picture.

The Squadron shifted focus to the Brigade culminating activity, Exercise PREDATORS RUN. Once again, dedicated support was provided to 5 RAR, with an element of 1 Troop enabling C Coy to conduct small watercraft insertion from Darwin to the Tiwi Islands, with the remainder of the Squadron prepared to move to the Tiwi Islands on Civilian Watercraft.



2 Troop with engineers from the Marine Rotational Force—Darwin—EX PACIFIC KUKRI

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CPL Matika Harvey provides instruction to a recruit from the Armed Forces of Ukraine—OP KUDU

As we culminate for 2023 and commence setting the conditions for 2024 through a suite of individual courses, the Squadron continues to live by the ethos of *Ready, Professional, Proud* notably;

Support to Operation KUDU: 12 personnel, ranging in rank from LCPL to CAPT, deployed to support the training of Ukrainian soldiers in the UK.

Littoral Modernisation: The Squadron has developed the SOPs for small watercraft operations within 1 CER, and led training for the Brigade to qualify further watercraft operators across all units.

Participation in Defence Sport: Members of the Squadron have contributed their exceptional skills to AFL, Football (Soccer), Netball, Volleyball and Cricket at Army and ADF Levels.

As I conclude my tenure as Officer Commanding, I cannot thank the members of the Squadron (past and present) enough. Their efforts to support rapid modernisation as the 1st Brigade accepted the challenge to generate littoral operations is commendable, and without these great people – nothing could have been achieved.

## 9TH FIELD SQUADRON (MECHANISED)

### Major Nicholas Price

2023 has been a very interesting and successful year for 9 Field Squadron. Being put to the test exploring new concepts, deploying to the near region, sending members halfway across the world and working with local communities; the team has demonstrated drive and professionalism in all aspects of engineering and mechanised operations.

The year started off with a chance for members from 9 Field Squadron to deploy to the United Kingdom on Operation KUDU, providing a unique opportunity to instruct small teams of Ukrainian military personnel. The team gained experience about instructing and working with a language barrier, however they gained valuable skills and contemporary knowledge which have been brought back to the Squadron to develop our own capability.

Exercise ARAFURA WARRIOR saw a contingent from 5 Troop deploy to Timor-Leste as a Mentor Training Team during quarter one. This was a chance for members of 5 Troop to master their basic soldier skills and train with a partner force on navigation, first aid, communications and marksmanship principles. The teams bonded quickly, sharing laughs and cultures and making it a very memorable experience.

Soon afterwards, the Squadron deployed on Exercise PREDATORS WALK 23 where we experimented with new lodgement methods, testing the limits of AS4s. The exercise highlighted the Squadron's variety of disciplines spanning from route remediation at Point Stuart, supporting the signallers to trial a floating command post on an Improved Ribbon Bridge (IRB) and live fire in stride breaching at MBTA. The exercise allowed for the Sappers to build their skill in both engineer specific tasks and mechanised operations. The Squadron gained a lot of new experience as we began to adopt new concepts aligned with littoral manoeuvre, moving out of our comfort zone and preparing us for future exercises and operations.



*AS4 from 9 Field Squadron disembarking a barge to deploy on Exercise PREDATORS WALK*

Next was the community engagement that occurred during the middle part of the year. 9 Field Squadron sent a contingent from 3 Troop to East Arnhem Land as part of Exercise GARKKMAN. This saw our members running a chainsaw course, and focussing on integration with Arnhem Squadron and the local community. This was an excellent opportunity for sharing knowledge and skillsets.

Arnhem Squadron showed us how to operate out of SRVs, conduct beach reconnaissance and operate effectively from zodiacs, and find all the right fishing spots.



*Sappers run Arnhem Squadron through a chainsaw course*



After a well-earned break, the Squadron began their lead up training for Exercise PREDATOR RUN which consisted of a dismounted field exercise, urban and search training and an excessively large brigade mud model. This put us in good stead for Exercise PREDATORS RUN supporting BG GOANNA; 3 Troop with attached Filipino Special Force boat operators deployed to Gunn Point and conducted small boats familiarisation for the entirety of the battle group. 5 Troop conducted mechanised training for the Filipino and Timorese forces, and completed search tasks and vehicle check points in Darwin City. 9 Field Squadron also took the lead on utilising the IRB in non-traditional means as a floating AS4 SBF supporting the culminating battlegroup action on Chanel Island. The team did great work throughout including building relationships with our international partners.

Concurrently, the Squadron sent an element on Exercise HARI'I HAMATUK as part of 23 Support Squadron's annual international engagement to Timor-Leste. Additionally, the Squadron sent a section to Adelaide in support of Exercise SOUTHERN TIGER where members would conduct a live fire explosive breach of obstacles as part of the 9th Brigade's culminating exercise for the year. This was the chance for the section to maintain relationships with 7 RAR and 1 ARMD and build new relationships with engineers from the Malaysian Army.

This year has been busy but rewarding. Teams have deployed all around the world, gained unique experiences, learned new skills and had fun together.



Crew Commander providing SBF on an IRB as part of the BG Assault

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## 23RD SUPPORT SQUADRON

### Major Daniel Luhrs

From conducting rescue mission serials with medical support, to conducting reconnaissance and dive missions with extended maritime insertion and basing. The 23<sup>rd</sup> Support Squadron of the 1<sup>st</sup> Combat Engineer Regiment (1 CER) have been working tirelessly this year to conduct a range of activities, domestically and in the near region – all within our core function of best supporting others. This year, 23 Support Squadron has supported multiple activities including Exercise CROC RESPONSE, a trilateral Humanitarian Aid and Disaster Relief (HADR) activity, Exercise HARI'I HAMUTUK (Ex HH), a construction activity in Timor-Leste, and provided support to brigade level activities such as Ex PREDATORS WALK in May and Ex PREDATORS RUN in August.

23 Support Squadron had a steady start to the year in leading the integration and field activity for Exercise CROC RESPONSE. This trilateral exercise involved the Indonesian Army (TNI-AD), the United States Marine Corps (USMC) and the Australian Defence Force (ADF) working together in a



*SPR Kyle Cini and LCPL Sam Sorbello  
conducting reconnaissance for Ex PREDATORS  
RUN*

HADR scenario based activity. The first phase of this activity was located in Indonesia where the unit sent 2 members to participate in the academic phase, to study the HADR response approach of each of the participating countries. This academic phase was followed by the integration and field phase where each country was able to practically implement their respective HADR skills. Each troop within the squadron performed a specific role; Construction Troop constructed the camp, field showers and provided the plant works to clear the camp. Combat Rescue Troop conducted training serials and were able to extract people from vehicle wreckages and provide medical assistance to a mass casualty scenario – a particularly impressive capability demonstration proudly enabled by the 1<sup>st</sup> Health Battalion. Finally, Specialist Troop established a water point to provide fresh water in a post natural disaster scenario and conducted engineer reconnaissance to identify additional water points and ways to improve infrastructure. Overall, Ex CROC RESPONSE was an excellent opportunity for the Squadron

to get out of the barracks environment and flex their trade muscles in a conventional field environment.

The Squadron truly went to work during the conduct of Ex HH. For this years' exercise, two accommodation buildings were constructed on the Metinaro Military Barracks of the Falantil – Forcas Defesa de Timor-Leste (F-FDTL) in Timor-Leste. The accommodation buildings were designed to house 40 F-FDTL members each. They have solar capabilities and the capacity to store 2500L of rainwater in the water tanks added to the buildings. With the work of 23 Support Squadron, the F-FDTL and US Navy Seabees, the construction of the two buildings was complete at the conclusion of the 5-week exercise. In addition to the construction of the accommodation.

Ex HH involved training teams from the New Zealand Defence Force, Japanese Ground Self Defence Force, United States Marine Corps and United States Navy Seabees. Together, we generated training for the F-FDTL in combat engineering, horizontal construction, welding, construction foreman training, transport, medical, communications, catering and small engine maintenance.



*1 CER Trade Section and supporting members from SME, 6 ESR and 3 FD SQN following the completion of the construction project on Ex HH23.*

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It was an excellent opportunity for the 23 Support Squadron members to build strong relationships with their F-FDTL counterparts and learn how the F-FDTL conduct their daily operations. Overall, the participants of Ex HH came home with smiles on their faces and friends from all over the world.

Finally, throughout the year, 23 Support Squadron have been doing just that; supporting other squadrons, units and the wider brigade. Combat Rescue Troop in particular have been providing ground rescue capabilities to the 1st Aviation Regiment tirelessly throughout the year. Additionally, they conducted a Combat Rescue Operator course for the Combat Rescue Operators from the 2nd Combat Engineer Regiment (2 CER) in February to March, providing support to wider Army. Specialist Troop conducted reconnaissance missions for the brigade level exercises in May and August of this year and supported Exercise GARRKMAN with NORFORCE's Arnhem Squadron by running training for its members. Finally, Construction Troop assisted with support to the NT Government during the bush fire threat to Tennant Creek in September, using the plant operators to provide fire breaks and conduct plant works. In addition to all of this, each troop participated in exercises such as Ex PREDATORS WALK in May and Ex PREDATORS RUN in August. It's been a busy year, but we wouldn't do it any other way.

In summary, 23 Support Squadron has been working hard all year to conduct meaningful and worthwhile training to empower Sappers to perform their best and love their job. Being able to conduct Security Operations in the near region and supporting interstate and international partners to succeed has been an honourable and rewarding experience for all those involved. The Sappers are keen and enthusiastic to do it all again next year!

# OPERATIONAL SUPPORT SQUADRON

## Major Luke Sipos

### Technical Support Troop “Arte et Marte”

2023 has been a busy and challenging year for Technical Support Troop (TST), from conducting courses in Q1, to supporting 1 CER in Ex GOANNA WALK in Q2, and finally, Exercise PREDATORS RUN in Q3. With the usual surge of tempo building up to major exercises, the Workshops showed impressive ability to prepare the regiment’s equipment for deployment as well as prepare and mount to conduct our own training in the field environment.



OJT PTE Ted Fleischer in front of 40M

Ex OCTOPUS CRAWL in Q1 provided an opportunity for TST to ‘shakeout’ for the year and was a good opportunity for OSS to ‘brush up’ on basic soldier skills and A2 related tasks while meeting all the new faces in the squadron, including our new Command Teams.

Ex PREDATORS RUN in Q3 allowed OSS to implement lessons learned throughout the year to provide an effective A2 across a dispersed Battle Group. For TST, this meant providing multiple Forward Repair Teams (FRT) in order to support soldiers with maintenance, repair, and recovery of land and water assets. This included a detached FRT of GE and EIR at the launch site of all BEBPs which required significant RAEME support. EMEFIXs also came in to support Bushmasters that needed repair in a contested battle space. Finally, launch and recovery of BEBPs was an underpinning key to mission success during EX PR 23, for which OSS contributed greatly.

### “OSS – Logistics Troop “Supplying Success”

During 2023, Logistics Troop at 1 CER has gained great experience and learnt new lessons in littoral supply. Logistics Troop has taken these challenges in their stride and been able to quickly

adapt to this new environment. The experiences gained through supporting the establishment of an Improved Ribbon Bridge, conducting our first littoral resupply and supporting 1 CER on Ex PREDATORS RUN will be invaluable to future capability and will serve as foundational knowledge moving forward.



1 CER vehicle convoy departure

The Improved Ribbon Bridge was established during Ex PREDATORS WALK in order to trial a floating CP, referred to as “Headquarters afloat”, and adapt to the littoral environment. Logistics Troop was key to the transport, establishment

and the continued sustainment operations of the BEBPs and HQ 1 BDE generators. In particular, CPL Clutterbuck, PTE Gregson and PTE Ali worked diligently and professionally and were instrumental in completion of the task. Logistics Troop was the first troop in 1 BDE to conduct a littoral resupply and support 1CER during Ex PREDATORS WALK.



EX Terrier Walk—Combined arms live fire complex obstacle breach

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## 2ND COMBAT ENGINEER REGIMENT

### Lieutenant Colonel Craig Bury

As the year draws to a close I reflect on this unit's remarkable journey during the last 12 months. I stand in awe of the individual and collective effort, resilience and unwavering commitment demonstrated by every member of 2 CER.

This year saw the culmination of a two-year progression that transformed the Regiment's approach to training and how it supports the 7th Brigade. The road to Contingency Response was characterised by progression towards or achieving professional mastery through activities and exercises that tested our teams physically and mentally. A necessity to achieve this was significant time in the field and extended periods away from family and friends. I extend my sincere thanks to all the families and friends of 2 CER personnel for their support and understanding over the last 12 months.

Now, fully prepared, we stand ready to navigate the dynamic landscape that currently defines our region and the world. This unit is in an excellent position to deliver across the four Engineer Functions and support the 7th Brigade or other deployed force should government direct us to respond.

The Defence Strategic Review directs this Regiment to transition to a Motorised Combat Engineer Unit. The transition to motorised began in October 2023. 7 Combat Engineer Squadron and the Operational Support Squadron will successfully manage the required change over the next 12 months.

I believe the 2023 updates from each Squadron that follow will inspire and showcase the profound power of resilience, determination and teamwork. I invite you to explore the pages of our journey that were filled with challenges, lessons learned and achievements.

I express my gratitude to the Sapper Magazine team for providing a platform to share this unit's 2023 experiences. Moreover, your dedication to capturing the Corps' achievements for future generations of Sappers is commendable.

My tenure as the Commanding Officer of this Regiment concludes at the end of this year as does the tenure of the Regimental Sergeant Major (RSM), Warrant Officer Class One Ben King. The RSM and I are exceptionally proud of all members of this Regiment. We are honoured to have served in a unit with officers and soldiers whose commitment to excellence made leadership a truly rewarding experience. Here's to a year of growth, learning, opportunity and success. May we look towards the future with excitement and anticipation, knowing we are ready for chapters yet to be written.

Semper Paratus (Always Ready).



## 2ND COMBAT ENGINEER REGIMENTAL HEADQUARTERS

### Captain Maxamillian Lowndes

2 CER and its Operations Team (RHQ Ops) had another fantastic year, having enabled the Regiment to take the necessary strides in becoming ADF's ready combat engineering regiment, all the while supporting the delivery of engineering effects domestically and overseas.

For a third year in a row, 2023 welcomed RHQ Ops with a domestic response operation, OP Flood Assist 23. In support of cyclone Ellie's recovery efforts, the unit deployed its Combat Rescue capabilities to Western Australia to enhance and enable the search and rescue effects.

Meanwhile, the unit accelerated towards Ex TERRIER WALK 24 (Ex TW24), a key milestone activity on 2 CER's road to Ex TALISMAN SABRE 23 (Ex TS23). This Shoal Water Bay Training Area (SWBTA) based exercise was designed to draw upon the gains made in 2022, striving to deliver advanced engineering effects to achieve complex missions, in exceedingly challenging environments. Noteworthy accomplishments achieved during this exercise included: the first tactical construction of the DSB at night under NVG, EHR of live and fused ordnance, operating the IRB in tidal conditions, a self-enabled live fire dismounted and mounted small-arms development package, the construction of a complex obstacles group comprised of a 400m anti-tank ditch (dug to specifications), four disrupt mine panels, 400m of CAT 3 w/apron, low wire entanglement, construction of an underground dual-occupancy command post. Ex TW24 culminated with a deliberate live fire breach operation, supported by 155mm, 50.cal SBF, M1A1 w/ plough, and a Combat Team assault force. Enhanced further with smoke generators, four iterations of the deliberate breach were executed, seeing each obstacle doctrinally reduced, including the tactical delivery of a fascine to breach AT ditching each time. The exercise came to an explosive climax with the successful reserve demolition and destruction of a genuine steel girder bridge. Having met its key training objectives, 2 CER was ready for its next challenge, the 7 Bde Warfighter, Ex Diamond Strike 23 (Ex DS23).



Elanora bridge preliminary demolition during EX Terrier Walk 23

Ex DS23 presented 2 CER with the opportunity to pilot a revised engineering support concept. The regiment's ORBAT and structure was designed so that it was postured to offer either direct, general, or reinforcing engineer support. This concept altered 2 CER's typical battlegroup / brigade groupings, which saw RHQ Ops retain C2 of the majority of its capabilities, with support then being provided to the main effort and/or mission specific task organisation. This allowed 2 CER to provide engineering effects to the brigade's manoeuvre without regrouping, examples of this are bypassing obstacles and conducting bridging actions. Success attained by the concepts delivery has resulted in the 7 Bde Comd/ RAE HoC's acknowledgment and endorsement for future development and employment. Having enabled 7 Bde to achieve its war fighting objectives, RHQ Ops was optimistic about undertaking its final leg on the road to Ex TS23 and certification.

2 CER's journey to TFTA was long, tough, and demanding, spanning almost two years of deliberate training. A mountains worth of techniques and skills needed to be overcome to get the unit ready, first by being learned, and then mastered. Through hard work, sleepless nights, gritted teeth, and the sweating backs of hardy Soldiers and Sappers, the unit climbed that peak, eventually cresting the learning curve and coming out on top. In the end, all the previous pain and rigor paid dividends when the Regiment arrived at Ex TS23 and was ready to enable the 1st AS Division, to not only live, move, and fight, but also conduct the infamous River Crossing Operation. The Fanning River proved to be the final trial for RHQ Ops' certification, which was overcome with the careful planning and deployment of the Dry Support Bridge, which was proved by 2/14 Light Horse Regiment's Boxer. It was a monumental effort for the regiment, and its operations team, to attain its current standard, achieving it only through the combined efforts and tenacious attitudes of every member in the 2 CER team.

Since Ex TS23, RHQ Ops has pivoted toward enabling the delivery of engineering effects throughout the south-west pacific region, offering the full breadth of combat engineering capabilities. Some international engagements supported by 2 CER include:

1. Ex COAST WATCHERS: MTT deployed to deliver engineer effects to bolster Royal Solomon Islands Police and Natural Disaster Management Office.
2. OP GOODWILL: A mobile training team (MTT) deployed to mentor and partner with Vanuatu Police Force, through community engagement activities and the Vanuatu Alliance 23 Recruit Instructor Course.
3. Ex CARTWHEEL: a five nation coalition exercise where 2 CER are providing search and breach training to the Republic of Fiji military in urban and field environments.
4. EX CORAL SAPPER: MTT deployed to provide training of vehicle/plant equipment maintenance and repair.
5. Ex POVAI SAPPER: Detachment deployed with construction focused efforts within Tonga bolstered with the provision of plant equipment maintenance mentorship for HMAF Tongan Marines.

Looking forward, RHQ Ops' attention shifts towards posturing for the 2023/2024 High Risk Weather Season (HRWS) whilst continuing to enable regional deployments. Additionally, the season for sports and military skills competitions has commenced, and the reigning champions (2 CER) have no intentions on relinquishing its trophies, fielding some of its strongest teams yet to compete in the STEELE CUP, 7 Bde MILSKILLS Comp, and Tug-O-War, to name a few. 2023 tested the Regiment and RHQ Ops, however, the team rose to the challenge and has embraced the lessons learned along the way, standing ready for the trials of 2024.

## **2ND COMBAT ENGINEER SQUADRON**

### **Captain Baade**

2023 has been an excellent year for the 2nd Combat Engineer Squadron to re-focus on our foundational warfighting capability. The growth of our individuals and small teams has been impressive and would not have occurred without the dedication of our non-commissioned officers. Importantly, for the squadron in 2023, we have been privileged to be part of new history, with the approval of the new Squadron mascot; the Wolverine. A parade attended by the Head of Corps marked this significant event in September.

The year started well before the traditional 15th January date, with the squadron deploying a six-person training team as part of Joint Australian Training Team—Philippines (JATT-P) in Cotabato City, Philippines. The team provided training on LUEB, sensitive site exploitation and IED awareness, which was later combined in live fire urban serials. The 80 trainees from the 62nd Divisional Reconnaissance demonstrated these newly acquired skills on Ex BALIKATAN 2023, while the training team moved to work more closely with the Philippine Marine Engineers.

From June through to early August, 2 CE SQN shifted focus to the joint land series and deployed on Ex DIAMOND STRIKE as the enemy party. Working with the MRF-D Lone Star Company, the squadron provided counter-mobility support to a battle group delay defence. The squadron, aligning itself with the DATE-P construct, practised asymmetric threats with the employment of indiscriminate explosives and conventional techniques. Ex TALISMAN SABRE 2023 saw the squadron reorganise back into TU TERRIER, providing 7 BDE with an Engineer Reserve. The exercise culminated in the divisional level river crossing of the Fanning River through a DSB and IRB. Simultaneously, 11 Troop, with an RFMF engineer section attached, provided their support to 8/9 RAR as part of the RBG. This saw the conduct of urban attacks, with the Troop providing mobility through search and obstacle clearance and survivability through CBRN serials.

Inclusive of JATT-P, the squadron had the opportunity to provide personnel to overseas deployments during quarter three. Specifically, this was seen on Ex CARTWHEEL and Op GOODWILL. The former involved the teaching and demonstration of LUEB to the RFMF in a combined training exercise alongside the Nevada National Guard, New Zealand Army and Royal Gurkha Regiment. The latter, an Army-led operation nested within Vanuatu Alliance 2023 that saw the support of regional patrolling and community engagement activities with the Vanuatu Mobile Force and Vanuatu Police Force. These opportunities provided the squadron a chance to aid in strengthening our partnerships within the region.

The squadron is now focused on force generation through the building of individual skills and the maintenance of an engineer reconnaissance team and Troop to the Ready Battle Group. This is a significant but critical undertaking to ensure Army's ability to respond to regional crises. Finally, and most importantly, we thank the Sappers, soldiers and officers for your dedication and sacrifice for the squadron; it has been, by all accounts, a demanding year. Moving forward, know that we are now in a good place because of your efforts and can focus on maintaining a core component of the Ready Battle Group for 2024.

## 7TH COMBAT ENGINEER SQUADRON

### Major David Ferwerda

Building bridges and blowing them up! 7th Combat Engineer Squadron (7 CE SQN) commenced the year fresh with a well-earned rest over the Christmas Stand-down having not been called out for first time in four years. This enabled the Sqn to roll into Exercise TERRIER WALK in February and give the Troops an opportunity to train on the IRB and MGB, basic combat engineering, mine warfare, abatis and demolitions. It was a challenging and high tempo exercise that resulted in a good hit out for our newly appointed Sappers and Troop command teams. The IRB on Shoalwater Creek proved interesting noting the crocodile sighting by SGT Henry (still to this day to be confirmed by any other member of the Squadron) but showcased some *Sapper-nuity* through use of the Infantry Foot Bridge as a gangway to the rafts.

As part of Exercise TERRIER WALK 23 reconnaissance and demolition calculations on Elanora Bridge were carried out by 14 Troop, before they laid and detonated 190kg of explosives. Elanora Bridge was built by Sappers in 1991 and has been maintained by them since then, making its demolition a significant moment for 2 CER. The demolition was conducted using hayricks and Comp B as a top attack proving a successful CMOB task apart from the significant bushfire and displacement of the local snakes from the detonation.



13 Troop Sappers during IRB task on EX Terrier Walk 23



14 Troop Sappers remove timber planks from Elanora bridge in preparation for demolition



The exercise culminated with a series of support to Combat Team Combined Arms Assault Breaching deploying fascines and explosively breaching a minefield and wire obstacles.



14 Troop Sappers with remnants of the destroyed Elanora Bridge on EX Terrier Walk 23



Sappers from 7 CE SQN drop a fascine in an anti-tank ditch during 7 BDE combined arms training in Shoalwater Bay.

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On our return from exercise the Squadron had a brief rest over April and support to ANZAC Day activities in Gayndah before recommencing the training year. The *Road to Talisman Sabre* had been long but following some upskilling on the new CBRND decontamination equipment the Squadron commenced battle preparation for Exercises DIAMOND STRIKE and TALISMAN SABRE.

The Squadron performed well on DIAMOND STRIKE and was testament to the hard learned lessons from TERRIER WALK and through extensive battle preparation and field craft lessons. Highlights included support to establishment of bridging across Fanning river and Keelbottom creek.

The Squadron also supported a number of international engagement activities throughout the year including Exercises CROIX DU SUD in New Caledonia, COASTWATCHERS in Solomon Islands, GOODWILL in Vanuatu and CARTWHEEL in Fiji. All proved an enjoyable activity especially for those Sappers who had never ventured outside of Australia.

Post Refit-to-Fight from TALISMAN SABRE the Squadron commenced individual training and courses as 7th Brigade transitioned to the readiness cycle. Notable mentions during the Brigade Sports was Sapper Rose Merriman winning the King of the Hill and the Squadron winning the Regiment Tug-of-War Competition and putting a significant effort into 2 CER's victorious fourth year in a row victory in the 7th Brigade's Tug-of-War competition.

The Squadron finished the year ready to support High Risk Weather Season and in a very strong position for 2024 and our transition to a motorised Squadron but never forgetting our mechanised roots!



## 24TH SUPPORT SQUADRON

### Major Lachlan Wallace

The year has been a busy and productive one for 24 Support Squadron. The Squadron has contributed to operations and exercises from Broome, to Malaysia, Tonga and Fiji as well as across Queensland. We hit the ground running, deploying to the field on Ex Terrier WALK to solidify foundation skills. This, and the subsequent plethora of individual courses, saw the Squadron well prepared to support the Regiment and wider Brigade on Exercises Diamond Strike and Talisman Sabre.

Construction Troop has honed their horizontal and vertical skills building dummy equipment, deployable ablutions kits, keeping roads trafficable and finding novel survivability solutions for the Brigade.

Specialist Troop have continued to develop their skills across the three sections with some admirable efforts in camouflaging and concealing assets with high visual signatures.

Combat Rescue have supported numerous aviation tasks across the full breadth of Australia.

The year has also seen many firsts (or at least firsts in a long time) which have included the trial of a deployment as a combined squadron with OSS, enabling a divisional wet gap crossing with DSB, digging in the Brigade HQ Main CP, and constructing fascines in support of mechanised breaching.

After a successful 2023, the Squadron is well placed to continue providing specialist engineering capability in support of 7 Brigade though whatever contingencies arise in 2024 and beyond.



24 SPT SQN Troop photo Ex POVAI SAPPER

## CONSTRUCTION TROOP

### Lieutenant Nicholas Filla

Construction Troop, led by LT N Filla and SGT J Drummond, were busy throughout 2023 supporting major exercises, international engagement and continuing to develop its construction capabilities.

The year started with the Troop deploying on Exercise Terrier Walk at Shoalwater Bay Training Area. Plant assets were instrumental in providing horizontal construction, supporting mobility effects for IRB and MGB operations, and route remediation. Notably, trade section conducted tree felling and portable sawmill operations to construct an underground CP. Additionally, the Troop designed, constructed and trialled 'fascines' to improve current anti-tank ditch reduction capability. Throughout Exercise Talisman Sabre trade mainly supported the brigade through Information Dominance and Influence, with the construction of mock-up PMVs and M777s. Plant effects were monumental in enabling DSB river crossing operations and survivability support to 7th Brigade HQ Main by constructing two underground crucifix positions for the HQ.

On return from TFTA, the Troop mobilised for Exercise Povai Sapper (Ex PS), a developing construction exercise between 2 CER and HMAF (Tonga). The main works, based at Taliai Military Camp on Tongatapu Island, included the construction of an obstacle course and building renovations on existing live-In accommodation. Additional works included plant remediation of the HMAF 25m range at Fua'amotu beach and mentoring 1CES, HMAF engineers on Manitou Materiel Handling Equipment.

These tasks required integrated employment across all services trades and plant capability. Notable mentions go to the leadership of CPL K Ramon as foreman of the obstacle course and electrician SPR R Saville for his fault-finding and remediation works across the barracks. Ex Povai Sapper 2023 proved to have many challenges including engagement with local contractors and material procurement in country. However, despite these teething issues in the Exercise's maiden year, it proved to be shaping up as a successful enduring annual partnership with the HMAF, our regional partners and friends. I look forward to the rewarding and meaningful construction efforts, which will occur on future Povai Sapper iterations.

Other notable achievements of the Troop throughout 2023 were the opportunity for Plant Operator, SPR A Burrell to support 8/9 RAR on Exercise Coral Warrior in Fiji and the work to relocate the Vietnam veteran memorial in Canungra led by CPL A O'Neill.

The training outcomes achieved and experience gained throughout 2023 have positioned Construction Troop well moving into 2024 under the leadership of LT J Kearns.



EX POVAI SAPPER—Construction Troop in cultural attire



EX POVAI SAPPER—Construction Troop

## SPECIALIST TROOP

### Lieutenant Mathew Todd

2023 was an exciting year for 24 SPT SQNs Specialist Troop!

**DSB Section:** The Dry Support Bridge (DSB) was deployed early on in the year on EX TERRIER WALK 23 as part of the unit's walk phase exercise. It began with a day build of a 22m bridge, culminating in a 46m bridge built at night under reduced light conditions.

The DSB was then deployed on EX DIAMOND STRIKE under night-time conditions, with the team performing the task proficiently under the aid of NVGs. This was followed by the Troop enabling a divisional crossing—the first utilising the DSB. This feat was nothing short of exceptional and enabled the Division to maintain tempo in the advance.

**WPDS/Resource Section:** Meanwhile, the Water Purification and Desalination System saw a return to the field environment following years of HADR deployments. A trial run early in the year on Ex Terrier Walk 23 saw the system produce over 150 000L of potable water for consumption at Shoalwater Bay. This led into EXERCISE DIAMOND STRIKE 23 and TALISMAN SABRE 23 where an emphasis was placed on the camouflage and concealment of the site from all the threats in the modern battle space. Throughout both exercises, the section worked across multiple sites in conjunction with 6 ESR to support both the Brigade and its attachments, producing a total of over 1.5 million litres of potable water, a solid effort from a small team.

**EDD Section:** 2023 has been a busy year of training for the 2 CER EDD section. EX TERRIER WALK 23 saw the section integrated at a section level within both 2 and 7 Squadrons where they participated in live fire sneaker lanes both individually and a part of a section as well as Route Search and Area Search, vital training to get the EDD' used to combat scenarios. Later in the year, EDD joined 2 CER on Ex TS 23 where they conducted joint training with 3 CER EDD consisting of personnel and venue search. Between field phases, the EDD Section conducted inter-agency training with QPOL, AFP and ABF, as well as having the opportunity to work with the US Secret Service during the SECDEF's visit to Australia. Finally, the EDD section finished their year, completing their annual assessments to an extremely high standard.

## **COMBAT RESCUE TROOP**

### **Lieutenant Samuel English**

Combat Rescue (CR) has spent 2023 providing aviation crash rescue (ACR) capability to exercises and domestic operations, in support of AVNCOMD and allied and partner nations.

An ACR detachment was deployed during HRWS 22-23 ISO OP FLOOD ASSIST 23 in Broome, WA. The team was mounted with 5 AVN, to provide risk-mitigation to rotary-wing platforms and support to the local community.

Following reconstitution, CR deployed to Darwin to attach to 1 CER for 6 weeks. During this period, CR completed winch qualification training on the Toll Helicopter Rescue Platform and – in conjunction with 1 CER – completed Combat Rescue Operator course, whilst concurrently supporting 1 AVN's live-fire Ex GRIFFIN GUNS. During this window, an ACR detachment from CR 3 CER was deployed on OP VANUATU ASSIST 23 ISO 5 AVN.

Returning to Brisbane, CR focussed on individual and team readiness in advance of 7X's Ex DIAMOND STRIKE and Ex TALISMAN SABRE 23. During this window, CR bolstered its ongoing relationship with 11X and 2 HB – working together to qualify Combat First Aiders (CFAs) and develop CFA instructors for the joint force.

For the exercise period, CR deployed three independent teams ISO AVNCOMD, and allied and partner nation aviation operations.

One team was deployed IVO Whitsundays, providing Aviation Rescue Firefighting capability to EXCON, to enable US and Japanese flying operations.

A second team was deployed to RAAF Garbutt and attached to Task Group GRIFFIN, the 1 AVN headquartered aviation task group providing rotary-wing effects to Ex TALISMAN SABRE 23. This team spent time attached to B SQN (5 AVN), providing white-role ACR capability, before attaching to an American blue-role rotary-wing AME team and conducting training serials alongside American aircrew and medical staff.

A third team was deployed to the TFTA to provide Aviation Rescue Firefighting capability in support of refuelling operations being conducted by 5 AVN's Forward Arming and Refuelling Point.

Since returning from the exercise period, CR has reconstituted and shifted focus to individual career courses and developmental courses. This will see most of the troop attaining qualifications in CFA, Tactical Rope Rescue (operator and supervisor), Structural Fire Controller, ADFFL, and CBRND courses.

The troop has seen considerable success in its sporting endeavours, with members representing the Army and ADF in Rugby Union, Rugby League, Cricket, CrossFit, Cycling, Water Polo and Surfing.

## **OPERATIONAL SUPPORT SQUADRON**

### **Captain Blake Chambers**

The 2023 training year started with a shake-up for 2 CER OSS, with a fair proportion of its personnel new to the unit, a change in inter-Squadron ORBAT and a February deployment to Shoalwater Bay. Despite this OSS hit the ground with a positive mindset and got after the challenges ahead.

Field training during the 2023 training year included Exercise Terrier Walk in February-March, Diamond Strike in June-July and Talisman Sabre 23 in July-August. Throughout this field progression 2 CER approached things from an unusual angle seeking to provide Brigade with an Engineer force in hand in the form of Task Unit Terrier. From a support perspective this saw OSS and 24 SPT SQN merge under the command of OC OSS and remain independent of the BSG through all phases. The increased capabilities within OSS as a result of this merger enabled both an increase in survivability of the Task Unit logistics assets and firepower at the halt. This in turn enabled the composite Squadron to maintain responsive critical capabilities within Construction and Specialist Troops, in addition to agile logistics elements, whilst maintaining a tactically sound footprint within the battlespace.

Within the barracks OSS and 24 SPT SQN worked to their traditional force structure enabling the continuation training and corporate governance to be maintained whilst maintaining sound lines of communication between the two sub-units.

Over the 2023 period, TST have produced 4000 labour hours of production; a remarkable feat for a Technical Support Troop of their size and composition, who are required to maintain such a vast and diverse array of land and sea materiel including two aging fleets (AS4 and PMV) as well as bridging, plant and other CE specialist equipment.

The LOG TP has consistently proven a vital element in support of 2 CER's operational success through commitment to multiple lines of effort throughout the 2023 period. LOG TP have been required to support the Regiment in preparation for field training periods and multiple international engagements to ensure that operational capability is ready and effective.

TPT TP, similarly to TST and LOG, has been required to commit towards field training exercises, international engagements and the array of unit led driver courses to ensure 2 CER members are proficient and qualified in a suite of vehicles. Due to the minimal manning in the TPT TP, liaison and collaboration with 7 CSSB drivers was required on EX DS and TS. This saw the effective integration and adaptation of drivers from 7 BDE contribute to 2 CERs mission success in the 2023 period.



OSS—40M



# 3RD COMBAT ENGINEER REGIMENT

## Lieutenant Nicholas Trotter and Warrant Officer Class One Michael Smith

2023 has been a very successful year for the 3rd Combat Engineer Regiment (3 CER). We have achieved SQN and Unit level training, participated in major exercises, supported numerous community organisations and conducted deployments to Papua New Guinea (PNG), the Philippines and Vanuatu. In addition, the Regiment has run 79 courses and conducted trials for electronic countermeasure equipment and bridging.

The hard work and dedication of our people continues to showcase our extensive Corps capabilities and how much a CER can achieve in support of the Brigade, wider Army and the Nation. This success is attributed to thorough planning from our Operations and Training Team and the continuous support from our logisticians in the Operational Support Squadron. These teams work tirelessly to keep our Regiment achieving great things.



18 CE Squadron preparing to emplace obstacles

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3 CER's training year commenced with EX DINGO FURY where the unit trained in basic corps skills including; defensive works, water purification, obstacle construction and reduction, urban breaching and search. During EX BROLGA RUN 18 CE SQN and 25 SPT SQN supported BG KAPYONG and BG EAGLE providing mobility support to the clearance of the AO, whilst 16 CE SQN supported the red force counter-mobility and survivability. Exercise TALISMAN SABRE saw the 1<sup>st</sup> (Australian) Division deploy into Townsville Field Training Area and the 3<sup>rd</sup> Brigade split across blue and red force elements. 25 SPT SQN supported the enemy, BG KAPYONG, with 16 Tp and 22 Tp attached. 16 CE SQN supported a US Army-led multinational BG while 18 CE SQN enabled BG EAGLE. EX BROLGA SPRINT followed and gave 18 CE SQN an opportunity to conduct live fire breaching during combined arms battle runs with US and Australian Combat Teams.

This year 3 CER's relationship with the PNG Defence Force strengthened through multiple activities. These engagements included EX KUMUL EXCHANGE where engineers from the PNG Defence Force participated in our EX DINGO FURY, 25 SPT SQNs work during EX PUK PUK on Manus Island, as well as 18 CE SQN's involvement in EX WANTOK WARRIOR in Wewak, and EX OLGETTA WARRIOR in Lae.



Route search on EX  
BROLGA RUN

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Likewise, 3 CER members deployed as part of two rotations of the Joint Australian Training Team – Philippines. The second of which was led by 16 Combat Engineer Squadron (16 CE SQN) following their participation in Indo-Pacific Endeavour 2023, the culmination of their involvement in the SEA SERIES exercises with 1 RAR and 2 RAR throughout the year.

The Regiments people and equipment were tested and tired by the time 16 CE SQN returned from Philippines, 25 SPT SQN returned from Manus Island and elements of 18 CE SQN were also back from PNG. However, we finish the year stronger, more experienced and better prepared to perform our roles than we were in January.

On top of our training we also celebrated our successes. The 3 CER Country themed Ball was a fantastic event - with duck racing being the highlight of the night! The Legacy Fishing Competition was an opportunity for our people to spend a long weekend fishing with family and friends whilst raising over twenty thousand dollars for North Queensland Legacy. 3 CER also achieved bragging rights, easily winning the 3rd Combat Brigade Tug-of-War competition at the Open Day.



EX KUMUL EXCHANGE watermanship course at Ross Island Barracks



PNGDF Engineers support EX DINGO FURY

2024 will bring 3 CER a new range of challenges and opportunities as we work to implement the structural changes from the Defence Strategic Review. 3 CER will become mechanised in 2024 and set the conditions to support the 3rd Brigade as Army's Armoured Combat Brigade. In 2024 the Regiment will grow its fleet of M113 AS4 and will prepare to receive M1150 Armoured Breacher Vehicles and the M1074 Joint Assault Bridges from 2025. We'll also continue to train to support Airmobile Operations and the Army Amphibious Force. 3 CER is excited to adapt along with the rest of the Corps and Army. I am positive that our people are ready for the challenge.



3RD COMABT ENGINEER REGIMENT 2023

# 18TH COMBAT ENGINEER SQUADRON

## Major Tom Wickham and Warrant Officer Class Two Ben Barling

The aim for the 18th Combat Engineer Squadron (18 CE SQN) in 2023 was to focus on JNCOs, to train for war and to have fun. After 12 weeks of field training maintaining the 3 CER contribution to the Ready Battle Group, short notice deployments to Vanuatu, the Philippines and PNG, more than doubling the Regiment Trust Fund profits and maintaining an A-Vehicle availability rate of 100% for all exercises - by any estimation 2023 has been a successful year.

### Ex DINGO FURY

18 CE SQN's year began with Exercise DINGO FURY, a test of our basic engineer skills and urban breaching techniques (and possibly also our mountaineering skills). When we were finally reunited with our APCs, we began practicing our mechanised engineering skills, including obstacle breaching by day and by night. The whole Regiment was out field for 2 weeks, however 18 CE SQN stayed out for an extra week to train with the 2nd Cavalry Regiment (2 CAV). With our ingenuity and their tanks, we conducted a successful combined arms breach. This was a considerable feat for so early in the year, and it set us up well for the future exercises. Nothing like a little combined arms breach to start the year off with a bang!

### Ex BROLGA RUN

During the two-week Exercise BROLGA RUN our troops and sections were greatly dispersed across BG EAGLE and BG KAPYONG allowing our teams to integrate with infantry and cavalry. We assisted them with breaching obstacles, clearing routes and defiles. The Exercise culminated in an attack on a deeply entrenched enemy at Objective Dove.



OC 18 SQN assessing the battlefield

### Ex CAPITAL

Exercise CAPITAL was a crucial milestone in transitioning from dry runs to live fire exercises. Our engineers honed their skills in assaults with dismounted infantry and perfected the art of demolitions. The SQN was exposed to quality training and opportunities to think on their feet. They investigated the best methods of assaults with dismounted infantry, and also the most efficient ways to blast concrete into the stratosphere. 18 CE SQN engineers are always figuring out better ways to get their tasks done, because as they say, the laziest person will find the easiest way to complete something, which to this day still holds firm.

### Ex TALISMAN SABRE

18 CE SQN was spread far and wide during Exercise TALISMAN SABRE (EX TS23). 21 and 23 Troop were attached to BG EAGLE and worked close alongside tanks from 2 CAV and Comanche Company from the US Army's 1st Armoured Division. Meanwhile 22 Troop acted as OPFOR doing everything they could to slow down the advancing battlegroups, which included nights of full rest, copious amounts of jack rats, phone reception, and felling a couple trees on the road.

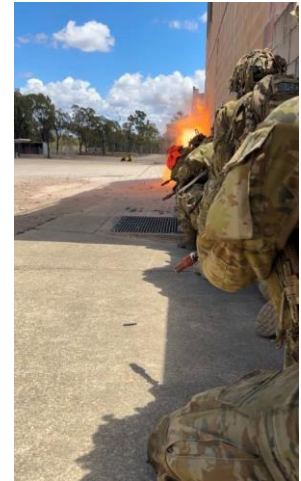
### Ex BROLGA SPRINT

Once again 18 CE SQN went above and beyond, staying out an extra week after EX TS23 to be a part of a live fire exercise, the entirety of the SQN appreciated the time extension. The troops each had the opportunity to integrate with 2 CAV and Comanche Company to go through the serial and provide a combined arms breach capability. The highlight of the exercise was the 3 CER RTF who brought a mobile coffee shop to the leaguer that proved to be extremely popular with every individual in the vicinity.



## Ex MATILDA

Exercise MATILDA had a heavy focus on Light Urban Breaching, with our engineers utilising live charges to clear the way for dismounted infantry. Unfortunately, a few infantry members left their packs in the path of a fire started by a dems serial, however the 3 RAR OC managed to salvage his bag, albeit heavily singed. Fortunately, the 23 Troop legends used the river system as a natural fire-break, saving their own belongings.



EX MATILDA—Urban breaching

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## PNG Trip

During the PNG Trip, our troops got hands-on experience with foreign forces, exploring small boats, conducting beach landings, and immersing themselves in a different way of life. The highlight was the open water exploration, and the longest trip was to an island over 2 hours away, which was to collect some pigs, however they were unable to use zodiacs due to the great distance and tumultuous sea state. During the boat trip, one of the PNGDF lost the tip of his finger and on the way back from the island, one of the Banana boats started sinking, and a digger attempted to get attention of the safety boat just to have another digger wave back joyfully.

## Vanuatu

A Section from 22 Troop were involved in the most rigorous exercise of the year. They spent their time in Vanuatu roughing it out in a 4.5-star resort; close in proximity to the beach, with forced snorkelling time. They did however have the opportunity to offer their skills in rebuilding the roof of a school for the locals.

## Vann Cup

The 3 CER Section Competition the Vann Cup was a success for 18 CE SQN this year with 23 Troop wiping the floor with their performance and 22 Troop coming through with second place. The winning Vann Cup Team is now training in order to take out the win at the Steele Cup later this month.

As always, it has been a jam-packed year of exercises, vehicle maintenance, rat pack consumption, and physical rigor. 18 CE SQN has achieved many great feats this year and will continue to be a high achieving SQN well into the future. Here's to another year of Engineering shenanigans.



18 CE SQN and 2 CAV

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# OPERATIONAL SUPPORT SQUADRON

## Major Kevin Moran and Warrant Officer Class Two Jason Ballard

2023 has once again provided a highly challenging year for Operational Support Squadron (OSS). Skill set shortages and vacancies forced a rethink on how OSS enables the Regiment. OSS developed workable solutions and continued to refine these solutions using opportunities both internally and externally during 2023.

The first key activity for 2023 was Exercise DINGO FURY. The overall goal for OSS was the revision and practice of logistic support tasks to the Regiment while operating in a field environment. OSS deployed to TFTA, establishing critical logistic effects to enable remaining unit elements to deploy. The initial focus was preparation for the issue of combat supplies to the engineer squadrons to enable establishment and the commencement of training. OSS training for the Exercise focused on all-Corps soldier skills and achieving an understanding on delivering the Logistic effect to the Regiment. OSS were able to achieve Linear Distribution Points, as well as revising and practicing the requirements for vehicle convoys on public roads using Land 121 vehicles.

OSS supported 3 CER's contribution to the BDE Warfighter serial being Exercise BROLGA RUN 2023. Whilst most of OSS did not deploy Log TP provided key distribution effects from barracks such as the prepositioning of stores and the rapid delivery of non-forecasted stores. In barracks TST TP continued with preparing equipment for Sea Series, Exercise TALISMAN SABRE (EX TS23) and Exercise PUK PUK.



FRTs from OSS support the regiment

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The main focus of the year for OSS was EX TS23. Although OSS didn't deploy completely it did support a variety of Units as well as the Brigade. LT Rory Whitton commanded a LOG node in support of the Regiment providing resources to 16 and 18 CE SQNs. The node conducted multiple step ups in order to secure lines of communication. OSS also provided tactical caches of CL IV to ensure 25 SPT SQN conducted its mission in support of REDFOR. TST housed the Littoral capability for the Regiment during EX TS23, assisting in the movement of three Zodiacs throughout Harvey Range Island in support of US led BG GIMLET.

TST TP followed their successes during EX TS23 with the planning and execution of the 2023 3 BDE Legacy Fishing Competition under CPL Couper whose efforts had brought in a record number of sponsors and prizes on offer. Additionally, TST TP provided an FRT to Exercise PUK PUK on Manus Island – a capability in high demand due to a combination of salt water and torrential rain. Log TP members also participated in the 3 CER Vann Cup, to crown the Regiments

Best Section. While Log TP did not come first, they gave it their best and ensured the Combat Engineers got their money's worth!



OSS planned and executed the 3 BDE Legacy Fish Competition

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OSS refined their marksmanship skills and participated in unit level training during Exercise DINGO RAIDER 2023 (DR23). DR23 saw members get qualified on key Army equipment such as the FNVS, TIS and the new CBRN PPE. Concurrently, throughout the year OSS assisted the unit in maintaining a Tier 1 quarterly audit process which identified areas for improvement, whilst maintaining a safe working environment. This led into a Tier 2 & 3 Audit to meet the requirements. OSS have performed to an exceptional standard in 2023. Despite a small workforce, they have continuously maintained the Regiment providing logistic effects in support of the commander's intent.

### 3 FIELD SQUADRON

Over the last year the 3rd Field Squadron (3 FD SQN) has continued to develop capability in preparedness for operations and High Risk Weather Season (HRWS) response. Although the last few years have been impacted by the COVID-19 pandemic, 3 FD SQN has contributed to overseas and domestic operations exercises and courses. In December 2022, LT Zovi and SGT Jackson deployed on OP FLOOD ASSIST 2 and were based out of the Murray Bridge Training area (MUTA) where they worked with other agencies providing command, control and coordination for the operation in support to the SES and other civilian agencies.

This year, SPR Brent Easson supported the 1 CER Construction Troop contingent on Ex Hari'i Hamutuk (Timor-Leste) where he assisted on their construction task working alongside the Falantil – Forças Defesa de Timor-Leste (F-FDTL). SPR Easson was recognised for his excellent work ethic and proficiency in the conduct of his trade role.



SSM WO2 Neville Pace attending the Intermediate Leadership course in Switzerland 2023



3 FD SQN EX SAPPERS BLAST 2023

WO2 Neville Pace was nominated by FORCOMD as the Australian Army's representative to attend the Intermediate Leadership Course in Switzerland in October 2023. WO2 Pace joined 30 Non – Commissioned Officers from 23 countries in experiencing one of the most challenging and diverse leadership courses available where their pre-conceived views of life and multinational leadership were challenged and enhanced.

2023 marks the first year the Squadron has come under the banner of Forces Command as part of 9 Bde's shift to being an integrated Brigade. This has provided the Sqn with significant opportunities that have not been present in the past. 2023 training will culminate with 3 FD SQN providing engineering support to 9 Bde's full time units, 7 RAR and 1st Armoured Regiment (1AR) on EX SOUTHERN TIGER and RHINO RUN.

All training for the first half of the year has been focussed on the tasks that have been allocated on these two exercises. For the CE Tps, EX SAPPERS SHAKEOUT and EX SAPPERS BLAST were the culmination of search and demolitions training in preparation for obstacle identification, reconnaissance and explosive obstacle breaching. This prepared the Sqn to be the breach force as part of a 1 AR led breach and assault during EX RHINO RUN.

EX RHINO RUN was a demanding exercise for the Sappers of 3 FD SQN who represented the 10/27 RSAR in the conduct of a live fire assault (under 7RAR) then transitioned into the breach supported by 1 AR where the troops experienced a significant number of land effects when conducting the breach.

Mobility Support Troop first broke ground in 2023 on EX WOODSIDE REPAIR. This was an excellent opportunity for the troop to refresh skills while conducting remediation works of base roads and the installation of a new large culvert on a main range track. The only minor incident experienced during the exercise was by SPR Damien Thomas (a plant operator), who had an unpleasant experience of evading a swarm of wasps. Unfortunately, SPR Thomas was operating a roller at the time the swarm attacked and therefore was not able to conduct a very rapid retreat as he had hoped. Fortunately, he was unscathed by the event.

For Mobility Support Troop, training has been focused on trench construction and hardstand establishment in preparation for the installation of a dug in enemy defensive position for EX SOUTHERN TIGER. This trench system enabled 7 RAR, and the Malaysian Army contingent to conduct realistic trench clearance training and training, techniques and procedures (TTP) development. The Mobility Support Troop then constructed a logistics hardstand in vicinity of Camp Baxter at Cultana Training area as part of EX RHINO RUN. This significantly enhanced the logistic capacity of the training area while delivering an excellent training opportunity.

In addition to the exercises, 3 FD SQN Squadron hosted the Defence Industry Immersion Day with the support of 9 CSSB, 1 AR, 7RAR and 144 SIG SQN. Most of our new capability was put on display and included the M113 Optionally Crewed Vehicle (OCV) and other static and live demonstrations. The Sqn hosted the Governor of South Australia and a number of Defence Industry Executives and Industry Engineers, demonstrating opportunities for collaboration and recruitment between industry and military.



3 FD SQN on EX RHINO RUN 2023

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MS Troop from 3 FD SQN conducting EX SOUTHER TIGER

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2023 also marks the 75 Anniversary for the Squadron. On 16 Apr 23, we celebrated Sappers day, where we were able to commemorate LTCOL Carl Miller's (former OC 3 FD) service to 3 FD SQN by adding his name to the memorial followed by a successful family day where members past and present enjoyed the opportunity to mingle and share stories of their time at the Sqn.

The remainder of the year will focus on preparedness for the High Risk Weather Season and PMV training as we evolve into a motorised engineering Sqn through the use of Bushmasters PMVs in the near future.





## 5TH ENGINEER REGIMENT

### Lieutenant Colonel Heath Stevens

The 5th Engineer Regiment (5 ER) has had a breakthrough year during 2023 with our focus firmly on further development and skill enhancement. The Regiment has begun a pivot to ensure we are able to meet the requirements and expectations demanded of us now and into the future. A number of key factors including the Defence Strategic Review (DSR), the recently released 2 (AS) Division Narrative, the pending RAE Capability Review (CR) and the major changes across Army has provided the impetus for the Regiment to focus on development.

With these key factors in mind 5 ER has begun a functional restructure with the emphasis on Foundation War Fighting (FWF), realised through an engineer framework, this has enabled the three Combat Engineer Squadrons (4 CE SQN, 5 CE SQN and 14 CE SQN) and our Construction Squadron (101 CONST SQN) the best opportunity to deliver a Trained, Competent, Ready, Reliable engineer effect that is able to be Repeatable (TCRRR).

In 2023, after an early stabilisation phase, 5 ER has gone on to train through the TORO ('Bull') exercise series seeing all elements of the unit deploy to the field to conduct focused and relevant Combat Engineer and Specialist Engineer training utilising the military ranges at Singleton, Majura, Orchard Hills and Holsworthy. Over this time 5 ER has conducted training, including RHQ and SQN CPXs, through to both Section and Troop competitions. The Regiment has further provided support to 5 BDE activities and undertaken works tasks in support of Holsworthy, Singleton and Orchard Hills Ranges and 65 Airbase Recovery Squadron (65 ABRS, RAAF). These efforts have provided a great opportunity to continue to develop and further refine Regimental team building and the full spectrum of foundational engineer skills.

I am extremely proud of all of the members of the 5 ER team and the commitment that they have shown to the Regiment and to the process of change, this has been borne out by our growing attendance and regular participation in unit activities. Together 5 ER is building the skills and the team that is willing and able to meet our directed requirements. I very much look forward to a strong 2024 and thank the 5 ER team for their continuing commitment to both 5 ER and the RAE, and, for their excellent efforts throughout 2023.

'Fortis et Stabilis' (Strong and Steady)

## REGIMENTAL HEADQUARTERS

The Unit conducted EX HOLDFAST STRIKE over 17 – 19 Mar 23 to further develop the combat behaviours of Regiment members by qualifying them in Army First Aid, including Tactical Combat Casualty Care and Army Combative Program Level 1 & 2. The First Aid training delivers content similar to that of a civilian course and then exposes soldiers to scenario's where they must utilise that training whilst prioritising security when a casualty is under enemy fire in contact, and, respond with what level of intervention is appropriate to the threat level at the time. The Army Combative Program teaches soldiers basic close quarters fighting techniques to guard against being disarmed or to utilise their firearm to exert control with appropriate escalation of force relative to the enemy combatant. This training is designed to build on the individual soldier skills developed at basic training and to progress soldiers to a skill level that provides greater capability to their unit.

EX WARATAH RUN 23 was 5 BDEs final lead up training activity for EX TALISMAN SABRE 23. Occurring over 17-26 March at Singleton Military Training Area, an O5 HQ and a Combat Team with an Engineer Troop, a PMV Troop and an Infantry Platoon from NZDF attached completed field training from section to company level. 5 ER were large contributors to the combat team, completing explosive hazard reduction and route search tasks in support of the manoeuvre commander.

Over 19 Mar – 26 May 2023, based out of Holsworthy Barracks but operating in wider Sydney Metro, 5 ER provided a CE section and LO in support of 5 BDE EX ARRAS SPRINT. The Exercise was designed to test a no-notice Defence Force Aid to Civil Authority (DFACA) callout supporting NSW Police. The Exercise involved Reception, Staging, Onward movement and Integration (RSO&I) and execution of a Full-Mission Profile (FMP) with a demounting activity. RSO&I involved legal-briefs, health-briefs and an AFP brief, as well as additional PME to the Combat Team through the DATE Pacific package.



5 ER's CE section on EX ARRAS SPRINT conducting building search

Execution of the FMP involved the CT (-) forward deploying from Holsworthy. A CE section conducted a serial with AFP that involved detainment and arrest of suspicious individuals. The CT (-) then deployed to secure a 'specified area' being Banksmeadow Depot. There, engineers conducted a low-risk search of the building with cordons established by the infantry call signs. 5 ER also utilised tier 2 Dismounted and tier 3 Mounted Soldier Combat Ensemble which was an opportunity to conduct training with the new equipment.

## 4TH COMBAT ENGINEER SQUADRON

### Major Julian Storm

Based out of HMAS Harman the 4<sup>th</sup> Combat Engineer Squadron conducted two training activities this year. The first internally at the Squadron level and the other beginning the Regiment's TORO series of exercises aimed at delivering a progression of infantry minor tactics and basic combat engineer training at the section and troop level while concurrently exercising SHQ and RHQ functions.

EX HOLDFAST ROBIN 1 was the internal squadron training conducted on Majura Range Training Area during June. This provided an opportunity for members to obtain qualifications on the EF88 Realistic Training Aides and conduct an airsoft urban clearance. It also provisioned the running of a CBRN-D confidence serial within the MTF and exercise troop and squadron command and control whilst being geographically dislocated from RHQ.

Focus then shifted to the planning and conduct of EX TORO WALK also at Majura Training Area throughout August, where RHQ and a squadron sized element deployed into the field. Soldiers participated in a round robin series of scenarios including vital asset protection, vehicle checkpoints, patrolling, route search, section attacks, and a water point recon. These scenarios were all nested within an overall enemy picture and provided a useful opportunity for junior leaders to command their call signs.

## 5TH COMBAT ENGINEER SQUADRON

### Major Matthew Pentney

Based out of Defence Establishment Orchard Hills (DEOH) the 5<sup>th</sup> Combat Engineer Squadron conducted a similar series of training. The internal squadron training in June as part of EX HOLDFAST ROBIN 1 focused on enhancing the defensive capabilities of FOB WOMBAT through wiring, HESCO placement and cooperation with 101<sup>st</sup> Construction Squadron plant assets. This was in conjunction with the refresher training on section patrols, ambushes, quick attacks and troop night harbours.

The conduct of the second exercise of the TORO series EX TORO RUN planned by the Squadron, sought to confirm those section level skills in a similar round robin fashion with exposure to a new range of activities. This included a navigation exercise, ACP refresher, stage 3 pit development, a section quick attack, TCCC and FOB hardening. This set the conditions for progression up to troop level training for each of the Squadrons.



FOB Wombat hardening during EX TORO RUN

## 14TH COMBAT ENGINEER SQUADRON

### Major David Cullen

Based across Bullecourt Barracks and Timor Barracks 14<sup>th</sup> Combat Engineer Squadron conducted their EX HOLDFAST ROBIN 1 during June at Bullecourt Barracks. Sections rotated through vehicle control points, area search, explosive hazard reduction and building search activities. The focus was on development of individual skills but an overarching scenario with task specific FRAGOs allowed section commanders to produce snap orders to lead the conduct of each activity.

This led to the planning and conduct of the EX HOLDFAST ROBIN 2 that built on all of the independent squadron led training in June to a force concentrated activity during July at Singleton Military Area. Each Squadron sent sections to compete in a section round robin activity consisting of a CASEVAC scenario, log cross cut, anchorage and vehicle recovery, a snap ambush, water point recon, CAT wiring and night navigation exercise.

The Squadron is looking forward to finalise the TORO series with EX TORO SPRINT at Holsworthy Training Area in October. This will see the transition away from section level round robin training to the employment of troops augmented with assets from 101<sup>st</sup> Construction Squadron operating under the control of a SHQ element.



Chainsaw log cut activity  
during EX HOLDFAST ROBIN

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## 101<sup>ST</sup> CONSTRUCTION SQUADRON

### Major Brendan Britton

Based across Lone Pine Barracks, Defence Establishment Orchard Hills (DEOH) and Holsworthy Barracks the 101<sup>st</sup> Construction Squadron utilised the training weekends over the months from May through to September to conduct repair works in conjunction with the respective range control staff at Singleton Military Area (SMA) and DEOH. In June route repair IVO Sector 3 at SMA was conducted in line with the range maintenance plan, which, allowed access to additional plant assets and material to refurbish culverts and resurface a flood damaged fire trail. During August at DEOH they enhanced a taxiway by connecting a hard standing to an existing runway in order to enable additional airframe mobility. Finally, in September hardening of FOB Wombat development and weapon pit construction occurred. FOB Wombat was enhanced with the construction of additional HESCO bastions which assisted in improving the protection of the position. Combat Engineers safely and effectively guided a front end loader ensuring the spoil was placed into the HESCO. At the pit construction stand, an excavator dug fighting trenches to Stage 2, allowing CEs to develop the position to Stage 3 in the time allocated for the serial. 101 CONST SQN Plant Operators benefited from the integration of working in and around CEs to achieve a common objective.



HX77 Dump moving spoil to the firebreak refurbishment task at  
Singleton Military Area

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## 6TH ENGINEER SUPPORT REGIMENT

**Lieutenant Colonel Matt Dobney and Warrant Officer Graeme Nagle**

The 6th Engineer Support Regiment began 2023 in the field, conducting foundation warfighting training at Greenbank as the Regiment prepared to support the 1st Australian Division on Talisman Sabre 23. The training; however, would be cut short as news came in of two Category 4 cyclones devastating Port Vila and further damaging Vanuatu's island chain. The Regiment rapidly pivoted, embarking the Regiment's Deployable Immediate Response Team – Enhanced (DIRT-E) on HMAS Canberra, as the engineer support force under the Australian Amphibious Force. The Regiment produced outstanding results and remained in country after HMAS Canberra's return to Australia to complete additional infrastructure works focussed on health care facilities and schools, accelerating Vanuatu's return to normalcy after the disaster.

Arriving home from Operation Vanuatu Assist 23, the Regiment returned to a compressed preparation for Talisman Sabre 23, exercising the Regiment's ability to provide theatre level engineer effects in a persistent threat environment. Talisman Sabre saw the Regiment in its element supporting Divisional manoeuvre and providing the Divisional Engineer staff to plan and coordinate engineer support across the force – the very reason for the Regiment's being. The exercise was interrupted however, with a short notice deployment to Nauru for our EOD team which saw a complex render safe of a WWII munition which posed a significant risk to life and critical infrastructure.

Following Talisman Sabre, the unit took a short break to celebrate the Regiments 20th anniversary. Originally known as Headquarters Engineer Support Regiment, the Regiment was established on 13 January 2003 and renamed 6th Engineer Support Regiment on 01 August 2003. More than 150 soldiers representing almost 30 different trades formed up on the 6th Engineer Support Regiment parade ground on 14 September 2023 to celebrate the occasion. The Reviewing Officer for the 20th anniversary parade, Brigadier Greg Novak, AM, Commander 6th Brigade, addressed the soldiers on parade in front of the invited guests, which included former commanding officers and regimental sergeant majors of the Regiment. Celebrations also included the opening of the 6th Engineer Support Regiment Memorial Walk to mark the anniversary and tell the story of the Regiment and the achievements of its soldiers.

The Regiment closed out the year providing EOD and construction effects to Operation Lilia supporting the Pacific Games in the Solomon Islands, as well as readying once more for the High Risk Weather Season in our Pacific region. 2023 has proven to be yet another big year for 6 ESR and we are incredibly proud of the team for the outstanding results which continue to be achieved by our amazing people.



6 ESR 20th Anniversary Parade—14 Sep 23



## 17TH CONSTRUCTION SQUADRON

**Captain Thomas Blackwood**

This year has seen the 17th Construction Squadron employed across a spectrum of engineer operations and training activities. The Squadron's readiness culture was tested early with significant, short-notice reinforcement of the regimental contingent that deployed on Operation VANUATU ASSIST. The Squadron continued to exploit opportunities, deploying a construction section to Fiji to work with Republic of Fiji Military Force tradespeople on Exercise CORAL SAPPER. Concurrently to these activities, a further trade section deployed to PNG to complete a solar installation as part of the 12 CEW redevelopment project at Moem Barracks, Wewak. The deployment is the first of its kind between 12 CEW and 6 ESR, and was an excellent method of achieving the ADF's strategic objectives and establish strong links with our regional partners.

Whilst the tradies were busy overseas, soldiers of Plant and Resources Troop worked closely together during an explosive quarrying activity in Wide Bay. This saw combat engineers explosively win material from a quarry using a hired drill rig and in-service explosives, for subsequent exploitation by plant operators. This was an excellent activity for the Squadron, and saw a number of key RAE skillsets exercised concurrently within the same quarry.



CPL Tomkins and Flitton from Plant Troop discuss the plan of attack at Wide Bay Quarry

The Squadron then consolidated and deployed to Exercise Talisman Sabre, with over 41 vehicles and 80 personnel. The Squadron employed the composite construction troop model to great effect, having plant, trade and combat engineers combine to deliver construction effects. A key outcome was the maintenance of the Divisional lines of communication and construction of an ablution block using Modular Deployable Force Infrastructure (MDFI) base plans.

After a successful retrograde from TFTA, the Squadron commenced planning for AACAP 2024 and has geared up for the High Risk Weather Season. Team 17 has enjoyed a great (but busy) 2023 and is looking forward to the next opportunity to get after it.



Construction Troop proudly showing off the Engineer colours in front of hardened accommodation bunker, constructed from HESCO during EX TS 23.

## 20TH EXPLOSIVE ORDNANCE DISPOSAL SQUADRON

### Major Josh Vogel

Throughout the 2023, 20 EOD SQN has not only maintained tempo but has seen a substantial increase in demand for the strategically significant skills of the RAE EOD Technician. 20 EOD SQN has pursued modernisation in order to better service the Squadron's ever growing range of tasks, roles and supported organisations. We saw capability growth in four areas, these being: amphibious insertion and operations in support of pre-landing forces; level one exploitation qualifications and cross training; advanced improvised energetics (home-made explosives) and for the first time working with DSTG to develop and conduct the Advanced CBRE User (live-agent) package that saw integration between the scientific and EOD community.

Operational commitments have remained at the forefront of the Squadron's activities, with two individual rotations as Mine Actions Staff Officer on OPERATION LINESMEN supporting the integration, operation and training of Republic of Korean EOD/De-miners within the De-Militarised Zone. We have seen scheduled support to OPERATION RENDER SAFE and the enhanced regional engagement throughout the Pacific. Key achievements for the Squadrons numerous international engagements saw members deploy to Thailand, Malaysia, Guam, Canada, Fiji, however most significantly the Solomon Islands. The Squadron led the effort to see the single greatest increase to Pacific EOD capability with the delivery of IMAS Level 3 (CMD and IEDD) aligned training to 18 members of the Royal Solomon Islands Police Force.



20 EOD discovery of U.S. 500lb WWII bomb at the Nauru port construction site

A keystone activity for 20 EOD SQN has always been OPERATION RENDER SAFE, and 2023 was no different. The Squadron saw an unscheduled deployment after a 500lb U.S World War II bomb was discovered in Nauru, resulting in the contingency force element being enacted. Within a 12-hour turnaround, 20 EOD SQN was deployed with eight EOD personnel and six enablers to conduct the most technically and situationally complex render safe task in the Squadron's history. The Squadron followed that up within two months with a schedule RENDER SAFE deployment, conducting a reconnaissance mission with support from EOD Technicians from the Solomon Islands, United States, France, Korea and New Zealand. This broad joint, combined team returned to Nauru to conduct surveys of suspected areas containing explosive remnants of war for future RENDER SAFE deployments.

Even with this whirlwind operation and international tempo 20 EOD SQN still managed to train, certify and assure the only Combat EOD capability that enables the Joint force to fight and survive. As always, the WALLABY series of exercises saw technicians and teams tested across the full spectrum of EOD operations in a live target and action environment across South East Queensland. The Squadron enjoyed the participation in the WALLABY Series from across the Joint EOD community with teams from RAAF and RAN participating, although we think they mostly came along for the .50 Cal Anti-Materiel Rifle Stand-off munition disruption shoot. We again saw integration of specialists from across Army in areas of Exploitation, Military Intelligence and Electronic Warfare.



This year has seen a significant increase in demand for RAE EOD Technicians and the Squadron has lived up to the expectations placed upon us, which will continue into 2024. For Sappers and LCPL/ CPLs interested in a career in 20 EOD SQN, a discussion and a PE-166 will see you eligible for a posting to 6 ESR to set you on down the EOD pipeline.



## 21ST CONSTRUCTION SQUADRON

**Major Benjamin Kuchel**

The start of 2023 was unusually uneventful, the Squadron was able to fully enjoy the Christmas Holidays and welcome its newly posted soldiers and officers. This continued until late February when the Squadron was placed on notice to deploy in support of a disaster relief mission in the region following the devastation of Cyclone Judy and Cyclone Kevin on Port Vila, the capital city of Vanuatu. The soldiers and officers of the Squadron responded, rapidly pivoting from field training to a deployment. The extended Squadron family, was incredibly resilient supporting their serving family members whilst adapting from a week long field exercise to what became more than a month long deployment.

Whilst deployed the Engineer Support Force worked alongside Sappers of the Vanuatu Mobile Force. Together we returned 17 school classrooms and 5 medical facilities to a safe working condition, assisted with the distribution of aid and cleared public roads and spaces of debris. The deployed squadron returned from Operation VANUATU ASSIST 2023 shortly before Easter, supporting the Regiment through its preparation for and participation on Exercise TALISMAN SABRE 2023 during June and July.

In early August, the Squadron commenced a number of troop-level construction tasks, maintaining trade skills. These activities saw the troops deploy independent of the Squadron Headquarters, completing construction tasks at the Canungra Training Area and Lake Moogerah, water purification training on the Gold Coast and a portable sawmill course at RAAF Amberley.

Throughout the year the Squadron has prepared and deployed personnel in support of construction projects and regional partnership activities being undertaken in Vanuatu, Fiji, Tonga, Papua New Guinea and East Timor, working alongside Sappers from across the Region. The 21st Construction Squadron can be proud of its achievements this year, particularly those whilst deployed to Vanuatu and in support to regional engagement and partnership activities.



6 ESR Sappers support the rebuilding effort at the George Pompidou Medical Maternal Centre in Port Vila during OP VA 23



Plant Troop Sappers undertake horizontal construction at Canungra Training Area during EX Rooster Specialist construction





## OPERATIONAL SUPPORT SQUADRON

**Captain Matthew Taylor**

The Operational Support Squadron (OSS) once again rose to the challenges and opportunities brought by a varied and eventful year. Highlights included the deployment of a logistic elements on both Operation VANUATU ASSIST 2023 (OP VA 23), and Exercise TALISMAN SABRE 2023 (EX TS 23), as well as the conduct of squadron and regiment training exercises.

OP VA 23 brought unique challenges and rewarding service while supporting the people of Vanuatu. Working with a highly motivated CSS team of attachments from 3 HB, 7 CSSB, and 9 FSB to form the CSS 5-1 call sign within Port Vila. Our soldiers demonstrated skill and forward thinking to be a part of the solution. Faced with sustaining the 21 CS call sign and supporting the local humanitarian distribution across the island with limited logistic supplies, OSS achieved a significant effect within the area of operation.



OSS at Bare Rock at Mt Cordeaux after a 7km hike for PT

Providing support to 17 CS on EX TS 23, OSS integrated pairs of Forward Repair Team (FRT) soldiers into the composite RAE Troops deployed throughout the TFTA battlespace. Within this AO, 6 ESR were tasked with route maintenance, water purification, and establishing the foundation for the build of the Role 2 hospital and the Divisional Detention Facility. The teams from OSS were kept busy and earned their stay within the Troops by maintaining the WPDS, vehicles, and plant equipment. The OSS soldiers deployed on EX TS 23 were crucial in enabling daily task completion, and through this fidelity there was much deserved satisfaction when seeing the by-products of their efforts.



OSS on EX Bailey Crawl following occupation of the defensive position at GBTA

In addition to the above deployments, the Squadron's tempo was punctuated by consistent training focused on both all corps, and trade specific skills. The soldiers and officers of OSS remain ready to support the Regiment thanks to the dedication shown throughout 2023 to achieve both individual and collective training outcomes.

# OPERATION VANUATU ASSIST 2023

## Major Benjamin Kuchel

In March 2023, elements of the 6th Engineer Support Regiment (6 ESR) deployed on Operation VANUATU ASSIST 2023 in response to Tropical Cyclones Judy and Kevin that devastated Vanuatu. The Engineer Support Force (ESF) comprised of plant operators, electricians, plumbers, carpenters and combat engineers from both the 17th and 21st Construction Squadrons, as well as enablers from Operational Support Squadron and various other units across Army, including the 9th Force Support Battalion, 2<sup>nd</sup> Health Battalion, 7th Combat Signals Regiment and 3rd Combat Engineer Regiment. At the time, a significant portion of the ESF were deployed in their local areas conducting training in the field. Despite this, they were able to rapidly pivot to support the operations, within 72 hours concentrating at Holsworthy Barracks in preparation for the deployment.



SPR Holding and SPR Cullen disembark from HMAS Canberra landing craft during OP VA 23



PTE Mirray and VMF CPL Donald prepare and cut sheets during the clean up and rebuild effort on OP VA 23.

On the 5 March 2023, the ESF embarked on HMAS Canberra and sailed from Sydney Harbour heading for Port Vila, the capital of Vanuatu. After sailing for four days, the Joint Task Unit arrived in Port Vila, Vanuatu on the 9 March 23. The following day, an advance element disembarked and commenced collaboration with Vanuatu Mobile Force counterparts marking the start of initial debris clearance and reconnaissance tasks. The main body of the ESF disembarked on the 11 Mar 23, when HMAS Canberra docked alongside the wharf.

The ESF maintained three Engineer Support Troops and an Operational Support Troop. The Support Troops consisted of a mix of trade, combat engineer and plant sections depending on the disaster relief tasks they performed. The Operational Support Troop sustained the force in Port Vila and consisted of a transport section, vehicle maintenance team, primary health care team, signals detachment and a procurement/supply team. Through engagement with the Government of Vanuatu, it was determined the worst hit areas were the Island of Futuna and city of Port Vila. The Support Force committed two Support Troops to tasks in Port Vila and the third troop to Futuna. A concerted effort was made to help with the government priorities of education and health facilities. These facilities included the Port Vila Central Hospital, Futuna Medical Centre and 6 schools across Port Vila.

Following the completion of tasks on Futuna, HMAS Canberra departed Port Vila on the 27 Mar 23 with the majority of the deployed vehicles, equipment and personnel. An element of 60 personnel including two of the support troops remained in Port Vila for another nine days to continue with recovery efforts, working alongside the Vanuatu Mobile Force. Throughout the duration of the deployment the Engineer Support Force returned 17 classrooms and 5 health facilities across two islands to a safe working condition. The final elements returned home to Australia on the 5 Apr 23.

The effect achieved by the ESF, led by the 6 ESR was significant in enabling the people of Vanuatu to more rapidly return to a normal routine. The work completed directly supported the health and education services on Efate, and further health and communal areas on Futuna Island.

# 11TH ENGINEER REGIMENT

## 104 CONSTRUCTION SQUADRON

### Lieutenant Andrew Paul

The 104<sup>th</sup> Construction Squadron (CS) saw significant strides in enhancing mobility, counter-mobility, and survivability capabilities. With a dedicated focus on plant and construction training, the squadron has participated in a series of strategically planned exercises that have contributed to their exceptional training year.

104 CS has not only honed skills but has also significantly contributed to the regiment's overall capability. By focusing on mobility, counter-mobility, and survivability, the squadron has improved the unit's readiness for a wide range of scenarios. The hands-on experience gained from constructing tank hides, pits, and expedient road works equips the squadron to adapt swiftly to changing battlefield dynamics. The involvement in demolition target preparation underscores the squadron's vital role in disrupting enemy movement, thereby enhancing the army's tactical advantage.

Furthermore, 104 CS's dedicated efforts in reconnaissance missions display a commitment to proactive and detailed planning. Armed with insights into terrain challenges, the squadron can better allocate resources and construct defensive structures that maximise the safety of friendly forces. This holistic approach to training underscores the dedication to not only contributing to the army's immediate capability but also to the long-term success of military operations.

The 104<sup>th</sup> CS of the 11<sup>th</sup> ER has undoubtedly had an exceptional training year, leaving an indelible mark on the 2<sup>nd</sup> (AS) Div.'s mobility, counter-mobility, and survivability capabilities. Through plant training weekends, demolition target preparation, site remediation, and reconnaissance missions, the squadron has shown a commitment to excellence and adaptability. As the squadron's training continues to develop and refine expertise, ongoing contributions to the mission will provide a capability that has the potential to shape the success of future military operations.

## 11TH COMBAT ENGINEER SQUADRON

### MAJ Simon Shakhovskoy

The 11th Combat Engineer Squadron returned to basics in 2023 with a focus on Foundation Warfighting and urban warfare. With a clear mission focused on domestic operations, 11 Squadron executed a number of key training exercises.

Exercise Parapet Atlas was the Squadron's opportunity to refine and practice white role search skills. In May, the Squadron took control of the Doomben Racecourse under the exercise design of conducting search in preparation for a multinational political conference. Leveraging skills that were gained by senior Squadron members across G20 and Commonwealth Games, the Squadron maintained a vital skillset that will no doubt continue to be practiced through to the Olympic Games in Brisbane.



104 CS constructing M1A1 tank hides with medium dozers



104 CS conducting earthmoving tasks using a backhoe/ HX-77 dump configuration



The Sappers of 11 Squadron have particularly enjoyed the focus on urban warfighting skills this year. In June, the Squadron deployed to Wide Bay Training Area and utilised the urban training facility to practice operating on the verge of green field and urban, as well as the complexities of fighting through urban terrain. This understanding was reinforced through the demolitions training weekend in August where the Squadron practiced light urban breaching for the first time in a number of years

2023 has been a refreshing year for the 11th Combat Engineer Squadron, having passed the disruptions caused by COVID-19 and with a clear focus for training outcomes. Going back to basics has reminded the Squadron just how good it is to be in the green, how good it is to be a Sapper and how good it is to blow stuff up.



Sappers of 11 Squadron

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## 35 COMBAT ENGINEER SQUADRON

### **Captain Mark Pollard**

35 CES has had a busy year in 2023 that was focused on getting back to foundation warfighting and Combat Engineer skills while also having strong representation at local recruiting events such as the CQ DFR Work Experience Day, NQ Jezzine Barracks 11 BDE Open Day and Army wide fundraising events like Run Army, held in Townsville for the first time.

The training year kicked off with some excellent combined training with 31/42 RQR in both Townsville and Rockhampton areas where the Sappers and diggers worked through section SOPs to build up to a combined high risk search activity in Ex PARAPET ATLAS. There was also the opportunity for 3 TP to support 31/42 RQR's Ex SITTING BULL with BNS serials to enhance infantry training.

The second half of the year saw 35 CES come back into its own with Ex MESSINES RIDGE by successfully conducting the first SQN run demolitions range practice since 2018 in a combined SQN activity at Townsville Field Training Area (TFTA) in August. SQN capability was also exercised and enhanced through the completion of the Portable Sawmill Operator course which was conducted in Rockhampton and run by 35 CES staff. This was followed in October by a combined SQN construction task, also in TFTA, during EX CLAUDE MALONE where a new sentry post was completed. The SQN also took the opportunity to hold a 'Dining in Night, Out Field' as part of the construction weekend which was well received and capped off an excellent year before moving into the High Risk Weather Season.



## **12 CHIEF ENGINEER WORKS**

### **Lieutenant Colonel Jon Pollard and Warrant Officer Class One Darren Parsons**

In the second year since re-establishment, the Unit has gone from strength to strength. We have been continually delivering infrastructure overseas since the re-establishment. This has seen relationships strengthened in Papua New Guinea and the Solomon Islands.

Whilst delivering on our primary role, the small team of exceptional people in the Unit have also progressed Corps and Defence wide capability enhancements which will be realised over future years. This includes the roll out of the Engineer Works Environment (EWE) and the procurement of a LIDAR survey drone.

The Unit would like to acknowledge our newest crop of Project Engineers on their first appointment within Army. These members have successfully negotiated the DFR minefield and have joined us to deliver a multitude of projects over the coming years:

Captain Arbess Balbarais

Captain Eric Doekes

Captain Christopher Corbett

Captain William Guelen

Importantly, 2023 saw the final year of SERCAT 7 service for a number of senior RAE and Army members. These members were:

Major Clive (Jim) Riddle

Major Chris (Zulu) Zdjelar

Captain Jackson Cail

Captain Luke Staples

Captain Ben Chambers

Warrant Officer Class One Daniel (Chook) George

Warrant Officer Class Two Andrew (Pitty) Pitt

Warrant Officer Class Two Matthew (Chikka) Tritton

The Unit was honoured to have you serve with us as your final unit in full time service to Army. There is substantial experience being lost with those mentioned above, moving on. We wish you well for a long and prosperous future, post transition.

## **18 WORKS SECTION**

### **Major Justin Cross**

18 Works Section maintained its three Papua New Guinea projects from 2022, including the Lombrum Infrastructure Project Early Works Package on Manus Island, Moem Barracks Live-In Accommodation and services remediation in Wewak, and services upgrades at both Goldie River Training Depot, Port Moresby and Igam Barracks, Lae.

18 Works Section has delivered excellent results, managing some challenging circumstances since I last wrote, including over the Christmas/New Year period. I will echo my comments from last year that these results are not without sacrifice of the individuals, but more importantly their families. The individual and collective efforts of the team continue to be impressive, emphasising the calibre of individuals required to deliver infrastructure effects (not just facilities) in the South West Pacific in support of Strategic outcomes.

### **Lombrum Infrastructure Project**

The Early Works package of the Lombrum Infrastructure Project being delivered by 18 Works Section is ongoing, and misnomer in title. It was originally intended to address the most critical infrastructure needs of the naval bases' redevelopment and buy time for the separate Main Works package being run by Jacobs to commence under a larger contracting model.



SRP Adam Fidge designing sentry post and guard house

Due to the voluntary administration of the Main Works Head Contractor in quarter four 2022, 12 CE Works was requested to progress some minor works packages to assist the overall project outcomes and provide subject matter expertise in quality and construction management to the Main Works sub-contractors. This also included the concurrent construction of a new entry point for the garrison with a sentry post/guard house.

Minpac Construction Ltd were contracted to construct the new Sentry Post/ Guard House for the Lombrum Naval Base. What is unique about this scope item is that it is the first to be planned, designed and delivered by 12 CE Works since its re-raising. 18 Works Section undertook the user requirement process for the concept, the Tech Support Cell drafted the design for external certification, then 18 Works Section undertook the procurement and delivery management.

### **Moem Barracks Live-In Accommodation Project**

The section has been continuing to develop the next iteration of accommodation work on Moem Barracks in Wewak. The project is nuanced to not only satisfy the immediate need for accommodation but also the long term need to improve and sustain underlying services.



CAPT Jackson Cail being briefed by PNGDF carpenter



6 ESR members installing a solar system on the 2PRIR Regimental Aid Post

The Head Contractor for the Live-In Accommodation building CC Pines Pty Ltd commenced work on site in November 2022. Working over the Christmas period undertaking site establishment and set out, as well as preparing for footings to be poured early in the new year. The pre-fabricated, modular construction concept is an enhancement on a design undertaken in 2018, which improves on passive cooling, addresses latent service supply, privacy and overall aesthetics. Unfortunately, some poor construction quality led to a delay in completion, now expected quarter four 2023.

Although the vertical infrastructure is the “show piece” of the project, the underlying services work that will support not only the new accommodation building but the central operations precinct of the Barracks, continued in 2023. 18 Works Section has developed functional end states for potable water, wastewater, power and storm water systems to complete in 2023/2024.

Minor investigative works, as well as a dedicated subterranean investigation by 6th Engineer Support Regiment tradesmen, has set the project up to pragmatically address the seriously dilapidated services as best it can. Concurrently to the subterranean investigation, 6th Engineer Support Regiment electricians installed five independent solar (with battery backup) systems on key nodes around the Barrack’s central operating precinct. This uninterrupted power source is a step change for the Barracks, making it more independent and able to better force project in support of PNG National Security.

### **Goldie River Training Depot and Igam Barracks Essential Services Project**

This year 18 Works Section continued development and commenced delivery of Essential Services upgrades to Goldie River Training Depot, Port Moresby and Igam Barracks, Lae. Design Services Consultant GHD completed their 90% design for the first of three Works Packages being the new potable water system at Goldie River. This includes everything “downstream” of the new raw water potable water supply node – rising main, water treatment plant, storage tanks and gravity reticulation. The Request for Tender for this package was published on AusTender in August, with the planned commencement of works on site from February 2024.



WO2 Bryan Griff with Bore Drilling contractor

Concurrent to the design development and Tender, 18 Works Section commenced minor works delivery on the new raw water supply system, as well as some complimentary “early work” packages. A bore field has been established, as well as construction access roads to enable the Works Package 1 Head Contractor to hit the ground running in 2024.



CAPT Jordan Locke with road contractor Hebu

## **196 WORKS SECTION**

### **Major Benjamin Cunningham**

196 Works Section remains committed to infrastructure projects in the Solomon Islands. This year it has progressed the Eastern Border Outpost project, led preparations for 12 CE Works to take over project management responsibilities for the Western Border Outpost and Hells Point Explosive Ordnance Disposal (EOD) Facility Upgrade projects in the New Year, supported 18 Works Section with the delivery of infrastructure projects in PNG, and provided support to other ADF exercises. The members of 196 Works Section have represented the unit, RAE and the ADF to an excellent standard, and I have no doubt that they will continue to do so as the sub-unit becomes more directly involved with projects in the Solomon Islands.



## Eastern Border Outpost project

The Eastern Border Outpost project consists of the design and construction of a multi-agency facility to support Solomon Islands Government border security operations in its most eastern region, Temotu Province. 196 Works Section is anticipating CDF approval of scope shortly, and once obtained, it will be in a position to progress design and construction. 196 Works Section will aim to package works in a manner that will create opportunity to practice elements of design management and to accelerate the delivery of less complex components of the project.



196 Works Section Deployed in Lata to conduct a survey with LRSS

A series of deployments to the Solomon Islands have been undertaken in 2023 to progress planning. At the beginning of the year, 196 Works Section deployed a small contingent to the Solomon Islands aboard the Australian Defence Vessel (ADV) Reliant with personnel from Australian Army Littoral Riverine Survey Squadron (LRSS) and Royal Australian Navy Survey Team to conduct a hydrographic survey in and around Lata and Vanikoro. The survey was a critical Inception Phase step that greatly assisted with progressing Eastern Border Outpost planning and design. More recently, the team deployed to Solomon Islands to meet key stakeholders and conduct local market research.

## Western Border Outpost and Hells Point EOD Facility Upgrade projects

The Western Border Outpost and the Hells Point EOD Facility Upgrade projects are currently being project managed by GHD on behalf of the Client, IP Infra. These projects are at the 50% design milestone with a planned handover to 12 CE Works in February 2024. The purpose of the Western Border is to support the Solomon Islands Government with strengthening its border security operations to the West, and the purpose of the Hells Point project is to promote Royal Solomon Islands Police Force (RSIPF) operations to dispose of Second World War explosive remnants of war.

In September, the majority of 196 Works Section deployed to Solomon Islands to progress Eastern Border Outpost Planning and to prepare for the deployment of project management teams (PMT) to support delivery of the Solomon Islands infrastructure projects. This deployment was a success and provided 196 Works Section with a greater appreciation of the local market,



MAJ Cunningham and WO1 Matthews meeting with Western Provincial Government Officials in Gizo

an orientation to some sites, an opportunity to meet key stakeholders and to test its deployment processes. During this deployment, 196 Works Section also supported IP Infra with scoping HMEF supporting infrastructure that may be included as part of the Hells Point (HP) project through a technical survey conducted by LCPL Kelly and meetings held with the Defence Cooperation Program staff at High Commission in Solomon Islands.



## Support to other projects and exercises

Throughout the year 196 Works Section has supported other South West Pacific projects and ADF exercises. In particular, WO1 Matthews and SGT Jeffery supported 18 Works Section from 12 CE Works with the delivery of MOEM Barracks, Lombrum Barracks and Goldie River in PNG. Furthermore, WO2 Bailey deployed to Indonesia to conduct a route reconnaissance in support of Exercise SUPER GARUDA SHIELD 2023. He assessed existing civil infrastructure, such as roads and bridges, and provided comprehensive report used to inform HQJOC planners. This provided the ADF with assurance that it could safely deploy personnel and armoured fighting vehicles to the exercise.



WO1 Brett Matthews supporting 18 Works Section on MOEM Barracks LIA

## Technical Support Section

The Technical Support Section has contributed to the success of the various projects by leveraging their specialised expertise in drafting, surveying and multimedia. Their collective contributions have led to tailored solutions and products that have enhanced project deliverables, highlighting the value of their diverse skills and collaborative efforts.

### Survey

This year saw surveyors SPR Tate Bennett and LCPL Sam Kelly provide technical support both domestically and overseas.

At Moem Barracks, East Sepik Province, PNG, an extensive survey on the base's sewer system was conducted with the aim to assist 18 Works Section in the system's revitalisation. SPR Bennett worked closely with PNGDF locals to locate and open sewer manhole pits, which were then analysed on their condition, and captured utilising GNSS survey receivers. The data captured was used to create a product that offers stakeholders insight into the current system.

LCPL Kelly has provided survey support in the Solomon Islands for 196 Works Section conducting a feature survey at Hells Point for a potential upgrade of the EOD facilities. In addition to the traditional land survey support LCPL Kelly has been processing hydrographic survey data for the Eastern Borders Outpost project in Lata, Temotu Province. A team from the Navy's hydrographers and the Littoral Riverine Survey Squadron collected this hydrographic data back in January and February.

The surveyors also collaborated with various contractors to provide assistance to on-base construction works at 6RAR. Before construction commenced, the surveyors initiated the planning with an onsite topographic and utility location survey, which was used to update base wide service plans.



LCPL Kelly conducting a survey in Lata Solomon Islands

## Drafting

The drafting technicians have continued to provide support to both 18 and 196 Works Sections, which included SPR Fidge's development of the Sentry and Guard Post at Lombrum Naval Base from concept to construction drawings and SPR Ramiro's concept designs for the Solomon Islands project. They have also had the opportunity to deploy to Port Moresby and work alongside the PNGDF to locate and digitise plans from the 1960s.

The 12 CE Works drafting technicians have also led a collegiate effort with the drafting technicians from the 6th Engineer Support Regiment where they enhanced the Lombrum Barracks Main Works issued for construction drawings to provide all of the information a local contractor would require to complete the project with no knowledge of Australian standard practices and details. This work will save the Commonwealth a significant amount of time and money from non-conforming work and rework.

## Multimedia

Multimedia has continued to provide graphical support to the Works teams through the creation of various products and provisioning of photographic and video support. CPL Thomas has deployed twice to Papua New Guinea to install a bespoke time-lapse system for Moem Barracks LIA and provide general image capture throughout Moem Barracks and Goldie River Training Centre.

In other modernisation efforts, VR headsets have now been acquired to allow VR walk throughs of simulated and actual architectural environments. 3D printed support products have also been further developed with the TECH SPT team visiting the local Makerspace, to investigate tools, to enhance product development for projects in the design and delivery phases.



PTE Spadaro, CPL Thomas, CAPT Cale and WO2 Griff in Wewak at Moem Barracks LIA

## 202 WORKS SECTION

### Major Stephen John

In 2023, the 202 Works Section has provided welcome support to 18 and 196 Works Sections, with members embedded to provide direct input, review and advice for individual projects as well as the conduct of numerous independent project audits. Members have also provided support to other Units including Defence Force Recruiting, 11th Engineer Regiment and 19 CE Works where they provided technical expertise for AACAP.

This year has seen the first two members join the Unit via the 6th BDE Industry Secondment Program. This is an agreement between the 6th BDE and a number of companies from the Defence Infrastructure Panel where tertiary qualified engineers are jointly selected to directly join the CE Works as a Specialist Service Officer under a one year SERVOP C contract.

The integration of SERCAT 7 and SERCAT 5 members within 12 Chief Engineer Works leads to further valuable knowledge sharing through Continuous Professional Development nights in 2023. Members of 202 Works Section leveraged their civilian careers to deliver presentations on a number of different topics.

# 13TH ENGINEER REGIMENT

## Captain Kane Bell

The 13th Engineer Regiment (ER) hit the ground at pace in 2023 after being raised from 13 Field Squadron into a Regiment on the 01 Jul 2022. 13 ER consists of two SQNs - 13 Field Squadron (13 Fd Sqn) and 22 Engineer Squadron (22 Engr Sqn). 13 Fd Sqn is a traditional Combat Engineer Squadron. 22 Engr Sqn is a first of type Science, Technology, Engineering and Mathematics (STEM) Squadron which runs the 13th Brigade Innovation and Experimentation Group and is developing an engineer technical reconnaissance and project management capability. Both squadrons have highly skilled and devoted individuals, led and enabled by the newly raised Regimental Headquarters.



13 ER section defence range

13 ERs Inaugural Commanding Officer is LTCOL Lachlan Robertson and the Regimental Sergeant Major is WO1 Eron Sage. The unit has 15 fulltime staff and an establishment of 220 positions; nearly 50 of these are for Any Corps personnel. Raising 13 ER has required a consistent effort to build unit governance framework whilst concurrently meeting raise, train, sustain and readiness requirements. This year provided the opportunity for many unit firsts. This included the Regiment's support to OP FLOOD ASSIST 2023 in January when 13 ER people deployed to support flooded towns and communities in the northern region of WA. ANZAC Day 23 saw the Regiment combine with the RAE Association of WA for the Regiment Dawn Service at the unit memorial, followed by a Bde level tri-service march through the Perth CBD. In May 13 ER conducted its first unit-level range activity, focussing on the Combat Shooting Continuum followed by a day and night Section Defence Range practice.

22 Engr Sqn received its first robotic system to test for the Army's Robotics and Autonomous Systems Implementation and coordination Office (RICO). The Ground Uncrewed System (GUS), built by Outlook Industries, has been our first test and evaluation success story, including the requirement to conduct a land user evaluation (LUE) for RICO. This required the Regiments' STEM SQN to learn the system, conduct trials during EX TALISMAN SABRE 23 and then generate a report for Army. To celebrate the Regiments 1st Birthday, which coincides with the RAE Corps Birthday, the Regiment conducted a Ceremonial Parade with Sovereigns Banner at the University of Western Australia. This highlighted the strong and integrated relationships with our academia and industry partners and enhanced our strong partner engagement in the West. The Regiments' collaborative approach to innovation, experimentation and recruitment is a credit to our motivated, forward thinking and highly skilled people.

During the 13 ER deployment on EX TS23, at RAAF Curtin in the Kimberly, Regiment members conducted field testing and evaluation on the GUS robotic system. They put the equipment through its paces in one of the harshest areas on earth and supported the Integrated Force in surveillance and reconnaissance on one of our largest Defence exercises. 13 ER people contributed to the Chief of Army Symposium 23 and the Army Robotics Expo at the Perth Convention Centre over 28-29 August 2023. It was an excellent opportunity for Regiment members to speak to Army's senior leadership and talk to members of Defence, industry and academia about 13 ER and what the new unit delivers to prepare Army to be future ready.



During the final quarter of 2023 13 ER will continue to train to deliver combat engineering effects and rapidly align with the Defence Strategic Review requirements. The Regiment will also be supporting EX AUSTRALIND 23, which will provide another opportunity for our teams to integrate with the Indian Army as they come to Australia to exercise with the ADF and 13 BDE in WA.

13 ER will continue to grow and expand on our innovation and STEM remit in support of Army and the future threats faced by the ADF. The unit looks forward to working with the Corp now and into future to ensure SAPPERS continue to lead the way.



13 FD SQN EX Tarakan search

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## 22 ENGINEER SQUADRON

The newly raised 22 Engineer Squadron has established the foundations of the squadron and has already set the benchmark for Innovation and Experimentation in the Western Region through Exercise Talisman Sabre 2023 and the Chief of Army Symposium 2023. It is proving to be an example of what smart soldiers can do to achieve modernisation and innovation in Army.

The Australian Military is constantly evolving to meet the challenges of modern warfare. The newly formed 22 Engr (STEM) Sqn, consists of an Innovation and Experimentation Group (IXG), Specialist Service Officer Project Officers and a range of highly intelligent, specialist SERCAT 5 members.

The structure includes Trials Tp (5 Tp) and a Works Section that are exploring equipment and solution applications and advantages, trying to uncover how technologies are reshaping military training and preparing soldiers for the complex and dynamic battlefields of the future. 13th Engineer Regiment are leading the way in Western Australia for Robotic, Ground Uncrewed System (GUS) training and Land Evaluations for Industry partners. This includes the recently completed first GUS basic user and operator training packages, in conjunction with Industry Partners, implemented on behalf of the Army sponsor, Robotics and Autonomous Systems Implementation and Coordination Office (RICO).

This Sqn, within the 2nd (AS) DIV environment, is harnessing the potential of its people and these systems as a first step to understanding the full capacity of what Robotic and Autonomous Systems – and STEM more broadly – can offer the wider ADF. Here at the 13th Engineer Regiment, Robotic and Autonomous Systems are revolutionising military training, providing soldiers within the 13th Brigade, realistic combat simulations, advanced tactical training, and exposure to cutting-edge technologies. Although in its infancy, the IXG is harnessing the power of uncrewed vehicles, advanced simulators, and tailored medical training so our soldiers are better prepared to face the complex and dynamic battlefields of the future. As technology continues to advance, training will evolve, ensuring that military personnel remain agile, adaptive, and ready to protect and defend the nation.

# 19TH CHIEF ENGINEER WORKS

## 11 WORKS SECTION – AACAP

### Major Tim Doust

The Army Aboriginal Community Assistance Programme (AACAP) has always been a significant challenge for Army Engineers, no matter the scope or location. 2023 has been no different, albeit with trials of a different nature and a major realignment to the programme schedule stemming from 2022.

On top of this, 11 Works Section experienced a nearly complete turnover in January, with only CAPT Gus Hortle remaining in the team. New faces in unit HQ and Army's partner organisation (National Indigenous Australians Agency) added further complexity, reinforcing the idea that the only constant is change.

As the command team, MAJ Tim Doust and WO1 Brendan Scully managed programme finances while maintaining oversight of all projects and navigating the politics of Canberra and a challenging client.

### AACAP 2022/3 – Gapuwiyak and Baniyala, NT

To be unaware of the volatile Australian building and construction market would be like living under a rock; in Arnhem Land, the cost of said rock would be between five and ten million dollars. This set the scene for continued challenges on AACAP 2022, deferred due to extraordinary tender prices and access constraints of the NT wet season.

After extended negotiations and a number of briefs to the Client, a new design and construct contract was awarded in September 2023 for the remaining scope items – an Arts Centre in Gapuwiyak community and a Community Shop in the Baniyala homeland. Delivery will commence in 2024, allowing for innovative design and deliberate planning to mitigate timeline risks.

### AACAP 2024 – Amata, SA

AACAP 2024 took the opportunity to draw on the lessons from Gapuwiyak in developing designs for the community of Amata, located in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands of remote SA. After some breathing space in 2023, 6 ESR (17 Construction Squadron) will lead the construction effort, delivering a Flood Management System and Service Provider Accommodation in 2024 under Exercise SAUNDERS.

2023 saw strong collaboration between the two units, with a tight-knit group reviewing design milestones and planning the construction of Camp Birt. Design review activities also saw 19 CE Works draw on the wider Corps and total workforce (SME, 12 CE Works, and 22 ER) to bring in trade expertise not readily available within the Works Section.

As part of this the PMT (CAPT Osgar Murphy, WO2 Jesse Hall and SGT Euclid Rodriguez) experienced a steep learning curve, all posting into the unit then diving headfirst into procurement and design activities. The team has embodied the Corps motto of "Ubique", extensively engaging with Amata Community and a complex set of authorities and approvals. All have maintained a positive attitude to meet community needs and build relationships, whilst maintaining a tight budget in a constrained timeframe. 2024 will see a seasoned PMT deliver on their hard work partnered with 6 ESR, as well as engaging a contractor for the third scope item, a Youth Centre.

## **AACAP 2025 – Torres Strait, QLD**

AACAP will see a major development in 2025, for the first time visiting the Torres Strait Islands. It will also undergo a temporary name change, to Army *Ailan* Community Assistance Programme 2025 – this in acknowledgement of the unique culture and identity of the Torres Strait Islander People.

With no direction entering the year beyond “the Torres Strait”, it was up to the PMT (CAPT Gus Hortle and MAJ Tim Doust) to determine a recipient community from the 17 inhabited islands in the area. Following a feasibility study to seven, it quickly became apparent that (short of basing on an aircraft carrier) AACAP 2025 could not follow the same concentrated model of previous years. Instead, construction would need to take the form of small works by small Army teams, with the Health and Training lines of effort having more prominence.

This resulted in a perhaps ambitious choice of not one but three communities – Erub (Darnley) Island, Poruma (Coconut Island) and Warraber (Sue) Islet. Each has its own distinct culture and set of local stakeholders, on top of the Federal and Local bodies governing the Strait. 2024 will see a big effort to pull together designs and approvals, as well as planning for deployment by sea and collaboration with Exercise TALISMAN SABRE 2025 – potentially bringing in assets from Navy, Air Force and international partners.

2025 will see a novel and exciting AACAPs ever delivered – harking back to some of the founding projects, testing the principle of “Centralised Control, Decentralised Execution”, and perhaps with the biggest struggle getting the contingent to leave! Don’t forget to ask for AACAP 2025 by name in your career interviews, and practice your casting skills.

## **AACAP Programme**

Projects in delivery typically get the glory, without considering what happens after ribbons are cut. In the AACAP team, closure responsibilities for the 12-month Defects Liability Period are led by the Works Manager. In 2023, WO1 Brendan Scully has worked tirelessly to close two projects from 2021 and monitor the Gapuwiyak Youth Centre delivered by AACAP 2022.

Finalising completion documentation and receiving client release marks the final step of the project life cycle and a major achievement for the unit.



## **108 WORKS SECTION – FIJI**

### **Warrant Officer Class One Liam Wardle**

2023 has seen the 108 Works Section team build on the strong foundations laid in previous years, engaging with the Fijian stakeholders and the broader construction industry through the management of our two projects. Project 221 Blackrock Camp wrapped up following a successful Defects Liability Period, and witnessed significant progress on the Project 227 Maritime Essential Services Centre (MESC).

We have not been immune to the workforce pressures that are extant across the Corps; however, both on-site and back of house Project Team members have managed to find some time to conduct professional development activities, participate in ongoing military training and education, and even the occasional team building activity to maintain a sustainable work life balance.

#### **PROJECT 221 – BLACKROCK CAMP – VOTUALEVU, NADI FIJI**

After handing over the facility in March 2022, the past 12 months has seen the completion of the Defects Liability Period and transition to a Maintenance and Sustainment lead headed up by the project client, Strategy, Policy and Industry Group's Pacific Division. The Project Team have visited the site a number of times and witnessed sustained use by the Republic of Fiji Military Force including internal training and multi-national Exercises. Blackrock Camp is now fully operational to the Republic of Fiji Military Forces for next season's high risk weather season and respond to any humanitarian assistance and disaster relief operations in the region. To see such use is extremely rewarding for all involved, and has strengthened the Vuvale Partnership between Australia and Fiji.

#### **PROJECT 227 – MARITIME ESSENTIAL SERVICES CENTRE – LAMI, SUVA FIJI**

Since breaking ground in September 2022, the MESC Project has come along in leaps and bounds. With an unprecedentedly dry summer, we saw fantastic progress in site clearing and bulk earthworks, allowing for the structural concrete activities to commence as planned.

Throughout this period, the on-site Project Team conducted numerous community engagement activities including a traditional Fijian Sevusevu with the traditional owners of the land to welcome the team and Head Contractor to the area. The project has been a beacon for both Australian and Fijian dignitaries and delegations, hosting an array of visitors from Australian and Fijian Parliament, along with Australia's CDF, CA, and DCN to name a few.

Ironically, through the dry-season, we have experienced significant wet weather that has slowed progress somewhat, but the site has taken shape and the majority of structural concrete is complete. Structural steel has commenced, with an aim to have a roof on before the next high risk weather season. The MESC will continue to be delivered throughout 2024, with an anticipated completion date of December 2024, with 108 Works Section postured to continue the great work achieved to date and deliver a fantastic facility and enhance capability for the Fijian Government.

## 198 WORKS SECTION—FIJI

### Major Krystian Havlin

Continuing from the great work achieved in the previous calendar years, 2023 was always going to be the culmination for 198 Works Section in delivering the Vanuatu Infrastructure Works project on Cook and Tiroas Barracks. After almost two years of construction, early in the year the project achieved the first building completion milestone, with the Band Hut on Cook Barracks handed over to the Vanuatu Mobile Force. This small, but significant, achievement was a catalyst for subsequent project milestones, with a handover ceremony for Stage 1A (Living-in Accommodation North, Guard House, and Guard Box) and Stage 2 (Engineers Workshop, Magazine, Armoury, Vehicle Workshop and Shelter) occurring in June. A spectacular ceremony coordinated by the Vanuatu Mobile Force marked the auspicious occasion, with the Australian Governor General His Excellency General the Honourable David Hurley AC DSC (Retd) was joined by the Prime Minister of Vanuatu, the Honourable Alatoi Ishmael Kalsakau Maa'ukoro to hand over the facilities to the Vanuatu Mobile Force.



CAPT Attard briefs Australian Governor General and Vanuatu Prime Minister during the handover ceremony of stages 1A and 2.



CAPT Farragher conducts a site tour for 19 CE Works' CO and SWM on Cook Barracks

The team are maintaining their focus for the remainder of the year on the final project deliverables and are well postured to achieve completion on majority of all facilities by December. With the intent to handover responsibility to an enduring maintenance solution after the Defects Liability Period, 198 Works Section has been working diligently to ensure that the team next year is well established to ensure success for the remainder of the project and are looking to their next challenge.

## BRIDGING THE GAP BETWEEN TRADITION AND INNOVATION: 201 WORKS SECTION IN 2023

In the dynamic landscape of the 19th Chief Engineer Works (19 CE Wks), 201 Works Section, comprising dedicated SERCAT 5 members, emerges as a highly professional and developed sub-unit. 201 Works Section is committed to providing invaluable guidance to SERCAT 7 Project Management Teams as well as round out backfilling expertise to the SERCAT 7 workforce. Each member within our unit brings a wealth of expertise, experience, and qualifications across various fields, such as engineering, commercial management, contract delivery, and project execution and general construction management. This diversity of expertise enables seamless integration into the wide array of requirements with 19 CE Wks.

Our support spans to offering highly specialised professional counsel. This counsel lies at the heart of the 19 CE Wks Mission and the Unit's Total Workforce capability. 19 CE Wks objective is to plan, design, coordinate, control, and execute infrastructure engineering projects, delivering specialised support across a broad spectrum of operations.



Gapuwiyak Culture and Arts Centre (artist perspective)

201 Works Section remains passionate and committed to driving effective and continuous enhancements to project delivery systems. We leverage the civilian-acquired expertise to elevate Project Delivery standards.

In the past 18 months, the 201 Works Section has expanded from just a few members to more than 18, boasting a diverse range of specialties, including works supervision, civil, mechanical, and marine engineering, architecture, and construction management. Our team collectively possesses over 200 years of industry experience.

### AACAP 2023 and 2024: Pinnacle Achievements in Capability and Community Engagement



Banyala Community Shop (artist perspective)

Under the guidance of MAJ David Sondergeld (Officer Commanding) and the leadership of CAPT Kevin Doherty, with support from CAPT Aleksandar Kocovski and CAPT Andrew Cosgrove, we have been actively participating in the Army Aboriginal Community Assistance Programme (AACAP) 2023. The focal points of this ambitious endeavour is the design and construction of a Culture and Arts Centre in Gapuwiyak and a community shop in Banyala, both situated in the East Arnhem Region of the Northern Territory.

In August 2023, AACAP 2023 underwent a transfer of leadership Command to 11 Works Section to align more closely with similar AACAP efforts. By September 2023, the procurement stage concluded with the successful award of the Design and Construct Contract. Although the project has shifted to the 11 Works Section,

CAPT Andrew Cosgrove continues to lead along with harnessing the unique skill set of 201 Works Section members.

The period from September to December is pivotal for the design phase. During this time, we will place significant emphasis on value engineering and constructability to ensure we attain optimal cost-efficiency. Throughout the design phase, CAPT Kevin Doherty, CAPT Aleksandar Kocovski, CAPT Katrina Dodd, CAPT Matt Palmer, CAPT Ben Nemeth, and CAPT Alex Taylor will collaboratively apply their expertise to scrutinise design and constructability. Additionally, CAPT William McRae, CAPT Alireza Faroodhi and LT Akhilesh Dhanekula will spearhead risk assessment and lessons learned workshops with the rest of 201 Work Section, ensuring a collaborative and engaged workforce to better inform risks to the project and provisions to the project budget. This collective effort underscores our Corps' philosophy of harnessing collective wisdom to deliver efficient and effective solutions.



This initiative reinforces our unwavering dedication to community service through engineering, echoing the Corps' storied history of providing both tactical and humanitarian aid. While the current emphasis of AACAP is currently on the Design Phase, the 201 Works Section is ready and eager to offer on-site support and guidance throughout the construction phase. It is expected that several members will be available for this role during the dry season in the Northern Territory in 2024.

In addition to our AACAP 2023 commitments, several team members have actively contributed to other initiatives. CAPT Rob Cirillo, CAPT Matt Palmer, LT Sathvik Nimmagadda, WO2 Scott Lee and CPL Glynn Stewart, have joined forces with the AACAP 2024 Amata team (11 Works Section) in South Australia. This additional project focuses on the construction of a single-level Arts Centre, showcasing the extensive skill set and versatile support capabilities of the 201 Works Section.

### **Quality Assurance and Project Management Systems: The Cornerstones of Our Operations**

In the role of Quality Assurance Manager, CAPT Matthew Palmer, supported by CAPT Alireza Faroodhi, CAPT Ben Nemeth, CAPT Martin Warda, and other dedicated 201 Works Section team members, has diligently overseen process and procedural audits for the Construction Project Management System (CPMS). This essential system forms the bedrock of the 19 CE Wks' project management capabilities. CAPT Matthew Palmer's collaborative approach to audits has resulted in both system improvements and a broader understanding among auditors.

### **Global Reach and Tactical Deployments**

While our primary focus remains on domestic projects, our involvement on the international stage is equally noteworthy. 19 CE Wks has a rich history of providing the Australian Army with a responsive, quality-assured and deployable project management capability for international construction projects of a strategic importance. Upholding this tradition, CAPT William McRae's recent deployment as an on-site Project Engineer in the Southwest Pacific and CAPT Rob Cirillo's contributions to a Wastewater Treatment Plant project in Vanuatu exemplify 201 Works Section's expanding global reach.

These opportunities have demonstrated how effectively SERCAT 5 members can integrate into full-time Project Management Teams (PMTs) to enhance overseas deployments. Examples include SERCAT 5 members being embedded in on-site projects and conducting engineering condition assessments abroad. These instances illustrate how SERCAT 5 members can successfully apply their civilian skills within a military context.

### **Continuous Learning and Professional Development**

Beyond our central roles in projects and quality assurance, members of the 201 Works Section actively engage in ongoing professional military and engineering education. This includes refresher training on foundational troop-level warfighting, combat engineering platforms, and combined effects at both the individual and joint levels. With a large variety of civilian skills, capabilities and employers, 201 Works Section has brought this variety into the continuous learning and professional development environment with a number of projects, technical, and external expert presentations.



CAPT Will McRae overseeing a concrete pour in Port Vila Vanuatu

### **Personnel Movements: Welcomes and Farewells**

We extend a warm welcome to CAPT Ben Ellis-MacMahon, who will undertake 12-months full-time service in 2024. Conversely, we bid a heartfelt farewell to MAJ David Sondergeld and CAPT Alex Taylor, extending our best wishes to CAPT Tennyson Chettipally, who will transition to SERCAT 3 to focus on post-graduate studies.

## **In Closing**

201 Works Section continues to uphold and extend the reputation of the Royal Australian Engineers Corps. Our initiatives, spanning from local community projects to international collaborations, remain deeply rooted in a heritage of service, expertise, and integrity. We remain committed to advancing these causes, driven by the same spirit that has defined our Corps for over a century.

## **UNIT OPERATIONS AND TECHNICAL SUPPORT SECTION**

### **Corporal Jason Jones**

19 CE Works kicked off the year with its first activity for 2023, the Unit Planning Conference (CO's Retreat) at HMAS Creswell, Jervis Bay ACT. A key activity to welcome in the new Command Team and key personnel to the unit, whilst also providing the opportunity for solidifying the unit mission, planning for key activities in 2023 and understanding the current climate and unit contributions to the South West Pacific (SWP) and Army Aboriginal Community Assistance Program (AACAP).

Following the CO's Retreat the unit then conducted its mandatory force preservation training and Technical Training, the OPS Cell organised two range practices early in the year and at midyear. The two live fire practices at Holsworthy aimed to meet, maintain and familiarise unit personnel on their proficiency in the use of the EF88, the RP serials, and to ready personnel for Operational duties. It also presented an opportunity for the unit's SERCAT 5 team to familiarise themselves with the rifle practices and for the JNCOs to maintain range safety currency and qualifications.

### **TECH Support - Embracing Growth and Learning at BECA**

2023 has seen the members of Tech Support Section successfully assist on several projects and other tasks. This required a higher level of flexibility and adaptability from all its members. Beyond the constant priority and manning shifts on associated tasks, every member has continued their professional development to improve knowledge, capacity and understanding of the section.

Draughtsman SPR Britten, participated in a secondment at BECA as part of AACAP 24, which proved to be a valuable learning opportunity. The experience offered the chance to be involved in a dynamic, multi-disciplinary environment, that aligned with current industry standards within the private sector. This in turn helps to build confidence in the members participating and improve the unit's operation through osmosis. One standout aspect of SPR Britten's time at BECA was the clarity in communication channels both up and down as well as horizontally amongst the teams. The staff members there, were not only highly flexible but also remarkably approachable, fostering a highly collaborative environment where questions and ideas flowed freely. The multidisciplinary workplace, encompassed Civil, Structural, BCA consulting, and experienced Architects at BECA, providing an incredible and valuable opportunity for skill maintenance and development of trade and industry standards.

### **Refurbishing the Married Quarters at Tiroas Barracks**

Midyear saw CPL Bolis (Draftsman) and SPR Westbury (Surveyor) spend two weeks in Luganville, Vanuatu in support of PACDIV. This involved collecting "As Constructed" data of the refurbished married quarters and data for a condition report of the existing headquarters, living-in accommodation and ablution buildings 21 Construction Squadron built in 1993. The data collection which spans across three separate sites, for both the Vanuatu Mobile Force (VMF) and Vanuatu Police Force (VPF) will be used as design concepts for future development of accommodation throughout Vanuatu.

### **Scoping the Torres Strait for AACAP 2025**

CPL Bolis and SPR Westbury accompanied a site reconnaissance in the Torres Strait as part of Scoping Study Phase Two and Three for AACAP 2025. They assisted in identifying potential sites, outlined the survey tasks required to provide accurate spatial data for future planning. The task required was to help determine the time required onsite, the collection and recording of survey data, the potential work scope items, and provide advice to inform the Works Section on the burden of execution for the task. Data was collected for the PMT by utilising GNSS and Scan data across a multitude of sites.



## 22ND ENGINEER REGIMENT

**Lieutenant Emily Mirabella**

It has been another successful year for the 22nd Engineer Regiment (22 ER). The Regiment has had a busy training schedule, which has seen the achievement of significant training outcomes. The focus has continued with developing Combat Engineering and Construction capabilities. This has included multiple individual and collective training activities, concentrating on foundation warfighting whilst still providing support to domestic and international operations and exercises.



22ER FPAP weekend held at HMAS Cerberus

## 8 AND 10 COMBAT ENGINEER SQUADRONS

The Regiment conducted two live fire training activities at HMAS Cerberus in the first half of the training year, intended to refresh and develop the Regiment's combat shooting and all corps skills. Members focused on combat behaviours, conduct of range practices up to RP3A, close combat shooting, ACP and AFA/TCCC training.

22 ER worked with the 4th/19th Prince of Wales Light Horse Regiment to conduct a combined arms breach between 12 - 14 May. It had been some time since 22 ER had operated with PMVs in an exercise setting, which presented as an excellent training opportunity to develop interoperability between units within 4th Brigade.

The Regiment further developed its corps skills through the conduct of two search exercises between 16 -18 June and 11 - 13 August. These were supported by members of the 5th/6th Royal Victorian Regiments Signals Platoon and CIMIC.

Much of 22 ER's combat engineering training for the year culminated in a 9-day exercise at Puckapunyal between 20 -29 October involving the construction of tactical obstacles and a main defensive position in support of a Battle Group. The exercise then shifted from a defensive to offensive mindset through the conduct of a combined arms breaching, using BNS to simulate the explosive reduction of obstacles. The Regiment leveraged an array of mobility, survivability and counter-mobility capabilities as confirmation to the smaller exercises conducted throughout the year.

## 105TH CONSTRUCTION SQUADRON – CONSTRUCTION ACTIVITIES

**Sergeant Robert Camilleri**

The 105th Construction Squadron conducted two 9-day construction activities throughout the training year. The first in March and the second in October, (October ran concurrent with the 9-day Combat Engineer activity). During the first construction block, Plant Troop constructed a 700m walking path from the Puckapunyal WTSS to Bridges Barracks (School of Artillery). Sappers operating in small capability bricks, worked independently to complete this task.



Members of 105 CONST SQN emplacing culverts to improve the longevity of the new PMA walking track

Civilian contractors, providing crushed rock from local quarries and stockpiled resources near the site to support its completion. The use of the HX77 Tipper and LX 120 Loader allowed crushed rock piles to be established, allowing the grader to spread the crushed rock. The path was finalised by using a roller to compact the surface, creating a durable walking surface. The task also required two culverts to be emplaced using readily available materials stored within the Engineer compound at the PMA.



During this construction exercise, the Squadron was also able to facilitate the running of a single license roller course. Small gains within a constrained environment, to ensure that we continue to grow capability whilst refining our construction skillsets. Plant Troop also completed a refurbishment of the demolitions spectator range, maintaining our strong relationships with the PMA range control staff. Later in the year, we transitioned from construction to supporting combat elements in the construction of Anti-Tank ditching and the establishment of fighting bays.



SPRs Baddock, Falzon, Galanza and Lawrence at the completion of the roller course



Project team at Cook Barracks WO2 Cronin, WO2 White and CAPT Farragher

## INTERNATIONAL SUPPORT – COOK AND TIROAS BARRACKS REDEVELOPMENT PROJECT

### Warrant Officer Class Two Scott White

In May 2023, I commenced a four-month rotation as a Works Supervisor with 19th Chief Engineer Works (19 CE Works) on the Cook Barracks (Port Vila) and Tiroas Barracks (Luganville) Redevelopment Project. The project is linked to a strong and enduring security partnership between the Governments of Australia and the Republic of Vanuatu delivering infrastructure for the Vanuatu Mobile Force (VMF). Supported by a Senior Project Engineer, Works Manager and additional Works Supervisors back in Australia, the in-country deployed Project Team comprised of a Project Engineer and two Works Supervisors who are responsible to the Indo-Pacific Enhanced Engagement Branch (IPACE) for Project Management and Contract Administration on IPACE's behalf.

Daily activities included site defect inspections with the Design Services Consultant, site safety inspections with the Principal Contractors, coordination of VMF training sessions for the new buildings, operational and maintenance documentation reviews, construction variation assessments and approvals, facilitating logistics and communications for visiting personnel.

Early March saw Tropical Cyclones Judy (Cat 3) and Kevin (Cat 4) pass through Port Vila within three days of each other. The site was locked down and the Project Team sought refuge, waiting out the damaging winds persistent rain. Working remotely during this period was challenging through intermittent power and communications outages. Mid-April was a busy period for the Project Team, with impending hand-over for one of the construction stages, Project Engineer rotational handover and a number of visitors who were provided site familiarisations. This included the Australian and New Zealand Army Chiefs and Regimental Sergeant Majors, Australian High Commission delegates, Commanding Officer 19 CE Works, Senior Project Engineer and Works Managers. This was an excellent opportunity to work closely with 19 CE Works to develop tangible and long-lasting outcomes as part of an important international engagement.

### External and Operational support

Members of the Regiment continue to support external support requests and operations. This year, SPRs Rothwell, Auwardt and Gordon deployed on TSE. WO2 Stevens, LCPL Purcell and SPRs Weetman and Riesewyk-Csongvay deployed on RCB 142, SPR Finch provided support on Exercise Saunders, LT Nguyen, SGT Hateley, SPRs Maranon, Nguyen, and Rothwell supported Exercise Talisman Sabre and a number of members supported a Victoria Police Special Operations Group training exercise simulating an active shooter event at Highpoint Shopping Centre in Epping.

## **New Members**

Staffing of the unit has been consistent with 19 new combat engineers marching in and 6 SSOs to 203 Works Section.

## **Chief of Army visit - Noel Tipton's Third Federation Star**

On 13 October, the Chief of Army LTGEN Simon Stuart, AO, DSC and RSM-A WO Kim Felmingham NSC, OAM visited Oakleigh Barracks to present CAPT Noel Tipton with the third Federation Star to his long service medal. It was fantastic for this significant milestone to be celebrated and was shared with his family and the Regiment.



RSM-A, CAPT Tipton and CA

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## **Transfer of Command**

In December 2023, the unit farewelled LTCOL Scott D'Rozario after a 3-year appointment of commanding the unit through many demanding domestic responses from COVID-19 to Floods and Storms. The unit welcomes LTCOL Russell Collins as Commanding Officer in 2024 and looks forward to the future challenges that will continue to prepare us for our role in Defending the Nation.

## **Reflections from the Commanding Officer – LTCOL D'ROZARIO**

Taking over Command of the Regiment in the middle of COVID-19 was challenging. However, it is a testament to the Soldiers and Officers of the Regiment who excelled in that environment. In my tenure as CO, the Regiment led the ADF response to the Severe Weather Event (July 2021), and backed it up the following year leading the ADF response in Victoria for OP Flood Assist 22-2. All the while continuing to develop and enhance Combat and Construction Engineering skills for the Joint force. Humbling to have been the CO of such a versatile and ready Unit that has proven time and time again that it a Unit that is Committed, Capable and Ready

# SCHOOL OF MILITARY ENGINEERING

## Lieutenant Colonel Matthew Marcinkewycz and Warrant Officer Class One Sean McAlinden

### REGIMENTAL HEADQUARTERS

The School of Military Engineering (SME) – Home of the Sapper has continued to produce excellent results while delivering a wide array of military engineering courses throughout 2023. The staff at SME have been busy and I thank everyone for their efforts. In particular, I would like to thank the instructors of the unit for the professionalism and dedication to your courses at all times.

Whilst focused on training new Sappers and developing our junior leaders, SME has continued to support regional security co-operation. Trade apprentices deployed in support of 1st Combat Engineer Regiment and 3rd Combat Engineer Regiment to Papua New Guinea (Exercise Puk Puk) and Timor-Leste (Ex Hari'i Hamutuk) respectively. The apprentices gained trade competencies and operational experience. Force Protection Cell deployed technical advisor teams to Cambodia in support of mine action working groups and Plant Troop deployed experts to design training courses for execution in 2024. Plant Troop also deployed personnel to support the delivery of a High Mobility Engineer Excavator to the Solomon Islands.

The Chief of Army states, "Australia's Army is an Army for the nation and an Army in the community". SME has embodied this through an enduring connection and support within the local community including Ingleburn RSL, Riding with the Disabled, Vietnam Veterans Association and the NSW Sapper's Association. The strong support and bonds between SME and these organisations connect our soldiers to the community through collaboration and shared experiences.

Together, the Regimental Sergeant Major and Commanding Officer offer a heart-felt thank you to the families and friends of our people. Without your support, the incredibly talented Sappers, NCOs and Officers could not train the next generation of Sappers.



SME unit photo 2023

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# CONSTRUCTION WING

## Warrant Officer Class One Daniel Thorne

Construction Wing commenced 2023 under the continued guidance of the once self-proclaimed construction illiterate OC, MAJ Elliot Hislop. Now with a full year of experience and some expert tutelage on Plant from WO2 Jason Moon to draw on.

Apprentice Troop started the year with over 130 apprentices working through on-the-job training with Construction Wing's well-established network of civilian Building Trade Experts. Throughout the year the number of apprentices swelled to over 160 across the suite of construction trades (actually whilst drafting this article another course marched in, so make that 170). We had two members commence a training pathway trial for trade transferees. They are currently in the process of completing a Certificate III in carpentry and also plumbing through New South Wales TAFE while concurrently obtaining their on-the-job training with our Building Trade Experts. An additional five members joined the carpentry trial program in July in an attempt to shorten their time in training.

Construction Wing supported Defence's strategic activities - EX HARI'I HAMATUK in Timor Leste and EX PUK PUK in Papua New Guinea. Apprentice Troop were able to put together a mixed bag of both Army and Royal Australian Air Force apprentices to support these activities. Needless to say, the Construction Wing Plant team remains very keen to provide similar support for the civil courses and trades to our international partners.



Members of the Adv Field Power Generation Course training on overhead power distribution systems.



SPR Giri, SPR Scott, SPR Courts and SPR Riall from Apprentice Troop supporting 1 CER on Ex Hari'i Hamutuk

Long Term Schooling programs for Draughter and Surveyor trades continue to be delivered through New South Wales TAFE. In addition, SME supports another 15 members who are completing their Diploma in Building and Design at the Ultimo campus or Diploma in Surveying at Yallah campus over a two-year period. Well done.

Construction trade promotion courses had a very big shake up this year with the Sub 4 CPL/SGT Con BES and Civil Module courses being replaced by civilian qualifications. Implementation of the new suite of courses has initially been managed by Land Combat College and is in preparation for the Joint Technical Trade Training contract that will encompass all Defence technical trades. The Subject 4 CPL/SGT Construction Core module courses continue but will likely need redevelopment so the whole continuum better aligns with our training requirements.

With demand high over the last few years, the Planties continue to dig deep (pun intended) to train the increased number of trainees for the Civil Construction Plant Course. Workforce pressure on this trade has started to ease a little but Army's Directed Training Requirement remains high and we will continue to look into more efficient training methods and alternate pathways to help scaling where the need arrives.

Our Air Force Engineer (AFENG) brothers/sisters-in-blue have well established their home at SME but we won't go far as referring to them as Sappers. Almost, but not yet! The small team is flying high now that Jason Rowe has been promoted to WOFF, with productivity going through the roof, and Directed Training Requirement for AFENG courses has been well exceeded in most courses.

All in all, 2023 has been a challenging but rewarding year for our staff and trainees. We wish all the staff members separating or posting out the best for the future and extend a warm welcome to our staff expecting to post in for 2024.

# COMBAT ENGINEER WING

## Major James Martin

Similar to 2022, 2023 was a challenging yet rewarding year for Combat Engineer Wing (CEW) in our pursuit of “Creating the Sapper” to meet Defence’s current and future needs. The staff of the Wing continued to deliver high quality training and mentoring to the trainees that required their foundation skillsets prior to moving on and conducting further learning or commencing their careers. It was great to see that our dedicated instructors continued to show passion in what they do and the care/time they spend both moulding individuals (to become better people and professionals), but also develop the way we transfer, and the way trainees retain and access information throughout the course. Significant achievements CEW can be proud of include enhancing the individual’s lived experience by confirming their isolated skillsets, on exercise, within a section and troop operational environment. Also, CEW instructors instilled the use of sappernuity by exposing trainees to different ways of achieving tasks across the full spectrum of engineer effects.

Holdfast Troop continued to provide a valued and vital role within CEW – preparing trainees for their future learning journeys whilst also supporting our members requiring retraining, rehabilitation or going through the separation process. I cannot understate the sacrifice and care shown by Holdfast staff. This goes for the current staff, but also for those who have floated in and out as the year has elapsed. The biggest achievement would be the incorporation of the healthy habits initiative whereby trainees focus on foundational pillars that will ensure they get the best learning experience possible. The continuous development journey focussed on the areas of sleep, diet, physically and mental wellbeing, and psychosocial.

The Wing Sergeant Major and I would also like to thank the support staff, from OPS to the admin cell, who tirelessly ensured that the troops were given appropriate guidance, resources and assistance. Your work is not overlooked and directly contributes to our why. We sadly farewellled CAPT Derek Levi, our seconded Engineer Officer from the Papua New Guinea Defence Force (PNGDF). Derek was 4 Troop Commander from 2021 to 2023, and brought a lot of real life experience and lessons learned from his time back home. He now takes up an Officer Commanding role at the PNGDF Engineer Battalion. We wish him well with his future career.

Over the past two years (2022-2023), I can proudly say that the professionals of the Wing produced 1172 Military and Combat Engineers for Defence (Army and Air Force) and our international partners. Staff from both 2022 and 2023 should be extremely proud of their efforts and the fact that this was achieved as a close knit team. We can’t ignore that this was done alongside members achieving fantastic personal milestones within their careers, family lives and pursuits on the sporting field.

My time at the Wing has made me realise two things. The first is the vital importance of understand the “why” of what we do. Without that we are just going through the motions. Secondly, and more importantly, that our Corps is made up of professional, caring and passionate Sappers who I will be forever in awe of. Thank you and all the best.



Sappers emplace obstacles in front of a defensive position



CEW Staff 2023

# ENGINEER TACTICS WING

## Major Jesse Meyer (US Army)

**Introduction.** The knowledgeable and hardworking cadre within ETW provided enhanced instruction throughout 2022. ETW trained over 575 RAE and 16 international commissioned and non-commissioned officers from across SERCAT 5 and 7.

**Communication Information System (CIS) Cell.** CPL Tisdell provided steadfast oversight and management as the ETW OPS SGT while leading the CIS Cell. His efforts, along with LCPL Rababi and LCPL Le ensured invaluable delivery of Basic Combat Communication Course Module 1 to the RAE Regimental Officers Basic Course and Combat Engineer Wing's Initial Employment Training courses throughout the year. The CIS Cell seamlessly achieved increased ab-initio training for more than 300 trainees from 1st Recruit Training Battalion.

### Subject 4 CPL course

SGT Aspey, CPL Parkes, and CPL Glover have endeavoured to modernise the delivery of the Subject 4 CPL course content. In 2023, the course has seen the reintroduction of section-level recon in the field environment. This allows the RAE Section Commander to move more freely about the battle space to provide "ground truth" to a higher command, enabling better-informed tactical decisions with increased accuracy in the field environment.



Picture caption1 CER member conducting protective works on a mortar lodged in a simulated airfield.

So far this year, over 60 RAE Sappers & JNCO trainees, including 2 Fijian soldiers, have been trained in the new course format. The modernised format provides a new skillset at the unit level to provide increased capability on the ground. The team of instructors conducted two sessions of the Subject 4 CPL with support from the Specialist Engineering Wing (SEW). The course is designed to prepare Sappers and JNCOs for conducting Section Commander duties in a Combat Engineer Troop within the RAE. The course encompasses the application of knowledge and skills required by an RAE Section Commander across a range of subjects, including Tactics; Wet and Dry Bridging; Chemical, Biological Radiological and Nuclear Defence; Demolitions; Search and Explosive Hazard Reduction.

### Subject 4 SGT course

SGT McIntyre further refined the Subject 4 SGT course Engineer Battle-space Assessment component by breaking the steps into several workshops run via short distance learning packages. These workshops enhanced the tactical analysis of the members attending this year's course. Moreover, this refinement has allowed trainees to produce detailed planning packs for their homework and assessment items. As Subject 4 SGT Phase 1 is delivered online using ADELE, SGT McIntyre has developed the training package into an optional exported training module to allow units' additional flexibility in ensuring their members achieve Subject 4 SGT Phase 1 qualification. Subject 4 SGT Phase 2 has seen minor changes with a streamlined effort to reduce the total days spent on course and away from family. Specialist cells maximised the efficiency of their content and embraced blended learning to achieve this reduced course duration.

Subject 4 SGT Phase 3 has also managed to reduce the training time burden, while impressively building multiple bridges with essentially a section +. Throughout 2023, ETW has trained 22 NCOs on Phase 1, including SERCAT 5 members, with Phases 2 and 3 also training 15 SERCAT 7 members.

### ROBC

CAPT Riles and WO2 Thomas led the successful 2023 ARA ROBC course consisting of 35 junior officers (25 RAE, 4 RAAF, 6 International). Their efforts, with support from across SME, enabled the 25 RAE to depart SME as qualified Lieutenants prepared for troop commanders positions in RAE regiments. The 6 International trainees (3 New Zealand, 2 Papa New Guinea, and 1 Fiji) embraced their newly-acquired skills, where they will apply these skills while leading Soldiers within their respective militaries.





ARA ROBC trainees posing after completing a bridging mission during EX KOKODA II.

ROBC 2023 utilised a similar model as the previous year with the conduct of three separate exercises designed to challenge and assess the course members. Exercise Kokoda I was conducted in Puckapunyal Training Area in preparation for Exercise Gauntlet Strike. Exercise Kokoda I exposed the ROBC members to mounted RAE operations before combining with the ROBC trainees from School of Armour, School of Artillery, and School of Infantry on Exercise Gauntlet Strike, which provided all trainees involved to Combined Arms Combat Team operations. This exposure enabled the RAE ROBC trainees to display some of the capabilities RAE provides to other call-signs as well as practicing their newly developed mobility, counter mobility and survivability skills in a field environment. The course concluded with Exercise Kokoda II at Holsworthy Training Area, providing the final assessment of the officers' ability to command an engineer troop.

Congratulations to the two 2023 ROBC Students of Merit:

Non-Technical: LT Oscar Arrowsmith

Technical: LT Ji-Sang Yu

### **Engineer Operations Officer Course & Subject 2/ Subject 4 Warrant Officer Courses.**

CAPT Young and WO2 Caldwell led a successful year, training 45 Officers & SNCOs through the three courses. The three courses enable leaders to successfully demonstrate the tactical acumen required as cognitively agile planners with the confidence and capability to succeed in a Combined Arms Accelerated Warfare environment.

30 SNCO trainees on the Subject 2/Subject 4 WO benefitted from more than 15 visiting lecturers imparting the skills, knowledge, and attitudes required of an SSM through their collective experiences. Both courses have been refined throughout 2023 in an effort to achieve more instructor face-time with less reliance on online systems as experienced in previous years. The outcome has resulted in greater trainee networking through collaborative problem solving, while thriving in a professionally challenging environment. These courses would have fallen short of their potential without the support from various visiting instructors that have challenged and guided the trainees over the year. ETW shares a dedicated "Thank You" to these supporters in this forum.

The EEOC courses remained at or near maximum panels throughout 2023, successfully training 30 LTs and CAPTs on tactical planning at the SQN, REGT, and BDE levels. RAE Majors serving as Visiting Instructors from units across RAE have provided invaluable support, imparting their knowledge and experiences to enhance the overall instruction. The course remains synchronised with instruction provided at the Combat Officers Advanced Course to ensure efficient training progression while attending each of the courses and ensuring junior RAE officers are well prepared to assume the role of engineer operations officer.



## SPECIALIST ENGINEER WING

### Warrant Officer Class One Douglas Royle

Through 2023, SEW have conducted the full spectrum of SEW capabilities. Whilst the delivery of directed training is the main effort, the wing continues to cross borders into analyse, design, develop components of the corps training continuum. With a number of modernisation irons in the fire, the staff of SEW still pride themselves on the formal training of the specialist capabilities of the corps.

**Watermanship and Bridging Cell.** With the constant pressure to perform with unavoidable vacancies, Watermanship and Bridging Cell continue to surge across multiple lines of effort. This has included anywise testing and a number of tasks that support AHQ initiatives.



SEW staff photo 2023.



Sappers dominating the Holsworthy entrance with the 2023 DSB course build.

**Demolitions Cell.** The Cell had a very productive 2023 driven by a new team WO2 (QMSI) Farrance, SGT K James, CPL J Broadbridge, CPL J Webb & CPL J Wilson. The team have focussed on a number of key areas within modernisation, including demolition policy, modulating explosive LMP's, inserting Land Range Safety Management Tool within the explosive planning training continuum and improving the operational demolition content. The year started with a SME explosive familiarisation day setting up all members within the school to conduct safe ranges throughout the year which was a huge success. It has been a priority for the team to work with joint stake holders ensuring demolition/explosive policy is clear and easy for members to use. The team has also produced tools for OIC/ESOs to utilise on explosive ranges. Safety remains key to training, as such the introduction of the incident procedure has also been enhanced within the explosive supervisor course. This has become a mainstay of the learning highlighting to members the importance of the reporting procedures. Inserting Land Range Safety Management Tool has taken a positive step forward in the explosive area in ensuring better assurance across the full spectrum of explosive training which is now reflected in both explosive policy and the training continuum. A particular mention of thanks is expressed to WO1 Rob Clarke for his tireless support which has progressed the Corps and its land range safety management. Members of Dems Cell deployed with 6 ESR to Wide Bay Training area. The purpose of this collaboration was to review and participate in an explosive shot firing / construction demolition range. This activity was very beneficial as it specifically exercised a lesser used operational capability. The subject of construction demolitions remains as a topic of discussion.

**Explosive Detection Dog Cell.** With WO2 Christopher Arp as our Trade Manager and SGT Ian Moss as our Chief Trainer we are in extremely competent hands. Through tireless effort and commitment to their job, they have produced a strong foundation as we move forward with further developing and enhancing the Explosive Detection Dog (EDD) capability.

LCPL Simon Corney as course leader has further developed and supervised the Section Commander Course (SCC) from January to June 2023 with the support of the other supervisors within the kennels. The SCC is conducted for dog handlers that have successfully passed the Basic Dog Handler Course (BDHC) and have been serving as a dog handler for approximately three years out in a Regiment. The SCC provides the basic dog handler the opportunity to be mentored by senior SCC qualified instructors, whilst training a maximum of four new dogs. These dogs have no prior training and at the completion of SCC dogs will be certified as an EDD then issued an EDD number.

CPL Andrew Nordling as course leader of BDHC, has provided crucial instructor support to SCC throughout the beginning of 2023 along with training a dog and preparing for BDHC to commence. This year's BDHC included nine ADF members and two international members from Malaysia. While the BDHC commenced on the 15 May, students had to arrive two weeks earlier to conduct the CFA course. The CFA course is essential as it gives the BDHC members the fundamentals to conduct the Canine Tactical Combat Casualty Care course (TCCC), that was the Brain child of LTCOL Greg Button, CPL Joel Toms and CPL Emily Varley.

BDHC is conducted from mid-May through to early December and has a crucial overlap period with the SCC. This provides the best opportunity for smooth handover of newly trained EDDs from SCC to BDHC. The handover period gives BDHC members the opportunity to spend one on one time with the trainer of their new EDD who can break down the specific training for that individual dog and help the new handler better understand their new dog. This course of action minimises confusion that could arise through lack of understanding of their dog in the early stages of the bonding period.

Newly promoted CPL Jagger Nicholas has had a good year so far by helping with the SCC and training his own EDDs. Of note, is his tireless effort in procuring essential materials for the new EDD Memorial. He has given his own time, including undertaking fundraising with the aim of completing the memorial by the end of the year—a great achievement.

RAAF CPL, Bradley Evans, will now be the last RAAF DLO within SME as they have decided to move away from EDD. RAAF are now moving to dual role dogs which unfortunately means we will be one less at the kennels. The RAAF contingent will be missed at the kennels and I would like to say thanks to all past RAAF handlers.

Last but not least, SPR Sorokovsky in Training and Development. The kennels wouldn't run as smooth as they do without him, except when he doesn't order peanut butter!

**CBRND Cell.** CBRND Cell has been hard at work facilitating contemporary CBRND training across domains to RAE and Joint

personnel as we continue to transition into the directed training capability states driven by L2110-1B. This great work, from WO2 Jeffery, CPO Churchyard, SGT Barnes and CPL Roach, includes integration of new systems and rebalancing of learning outcomes. Additional work is being undertaken, under the CBRND Training Advisory Group, in mapping the new CBRND Training System. The development of this training is an important step in helping ADF realise the goals of L2110-1B.

**Flaim Systems.** Through 2022 /2023, WSM SEW has aggressively supported the development of the Flaim Systems Virtual Reality training system. The project has progressed very well with a number of demonstration serials at SME. It is also noted that the project has also enjoyed support from 22 ER soldiers and was used extensively during Steele Cup. These activities will help inform introduction into service.



2 CER Activity involving surface shot fire techniques



Diesel, the much loved Kg first aid training device being put to very good use on the current EDD series of courses.



Casualty movement in a CBRN environment.



# TRAINEE REHABILITATION WING

## Sergeant Saxon Stannard

Trainee Rehabilitation Wing (TRW) is a sub-unit of SME that facilitates the rehabilitation and reconditioning of initial employment trainees with complex and long term injuries to improve retention of Wounded, Injured and Ill (WII) personnel. TRW is a purpose-built rehabilitation facility located next to the Holsworthy Health Centre and enables WII trainees to access the best medical specialists in Sydney.

At any one time, approximately 55-60 trainees from Army's Training Establishments are posted to TRW. While at TRW, the soldiers receive tailored rehabilitation programs and mental wellbeing and resilience support. They also undergo PT twice a day, conduct both hydrotherapy and physiotherapy, practice breath work, mindfulness and meditation, undergo recovery protocols using TRW's ice bath and sauna, plus a range of military lessons and activities aimed at ensuring they return to their training pathway equipped for success.



Staff, trainee participants and medical support staff (TRW MO, Rehabilitation consultants, Rehabilitation Consultant managers and Physiotherapists) post Full Mission Profile

While rehabilitating, it remains important to keep everyone focused on being soldiers. They routinely execute live fire weapon qualification and range practices; deployed exercises that include IMT skills, urban clearances, mass casualty scenarios, stability operations with role players, conduct of VCPs, execution of a deliberate ambush and site exploitations; and multiple dismounted navigation exercises.

We have also had the pleasure of hosting guest speakers from several external units (6 AVN, 2 CDO and SOER), that have allowed for an increased perspective into other roles. As some trainees are unable to return to their corps due to their injury, these guest speakers contribute to trainees' motivation and determination to continue with a career in the Army.

To complement the military training program, enhance the wellbeing and emotional states of the injured soldiers, increase team cohesion, and build 'esprit de wing', TRW facilitates monthly off-base activities. This year we have visited/partaken in Taronga Zoo; Escape Rooms; visits to the Australian War Memorial and off-base PT.



PTE TRN Nelson secures road and awaits exfil with his section.  
PTE TRN Nelson was awarded Champion Soldier for FMP 1.

The staff of TRW are all-corps, and 2023 saw a 65% staff turnover. Most of the new staff had limited experience with trainee rehabilitation, but 2023 saw them navigate the dynamic reality of rehabilitation, soldier welfare and the execution of complex activities involving WII soldiers. They learned these insights while managing external support tasks, promotion courses, and community engagement activities such as volunteering with Riding for the Disabled Association. The mission remained clear though, and the staff selflessly ensured that the soldiers they commanded were retained in Army, and optimally prepared for the realities of service.



TRW PTI SGT Anderson briefs section 2ICs on the requirements for exfil during FMP 2, a call sign resupply (July 2023)

Staff weren't alone though, and TRW was fortunate to be supported by an exceptional medical team from Holsworthy Health Centre. Particular thanks to the following people for their ongoing investment and dedication: Dr. Marwan Toma; Physiotherapists – Michael Tran and William Dao; and Rehabilitation Consultants – Megan Curry and Kenny Tran. 2023 has seen a paradigm shift in soldier welfare management, training and rehabilitation at TRW. But the work is not done, and TRW continually strives to improve practices that enhance rehabilitation and retention outcomes for Army's trainees.

# TRAINING SUPPORT WING

## Major William Miles

The wing encompasses the key logistical enablers from a variety of Corps that come together to support the development of Sappers and Military Engineers that include maintenance, transport, physical training, logistics and medical. Throughout 2023, TSW has supported all the wings to enable delivery of key courses whilst also providing some excellent opportunities to individuals to conduct their own professional development.

To hit off the year, TSW hit the ground running in supporting induction of staff and trainees while supporting courses that started in early February 2023. In April 2023, TSW conducted an adventure training activity which saw all the junior soldiers take to the Blue Mountains to complete a multi pitch abseil within the picturesque Grose valley. The SNCOs separately conducted a PME activity followed by Ten Pin Bowling lead by the WSM/ASM WO2 Richardson (RAEME).

The SME Medical Section, led by CPL Varley (RAAMC) provided sound medical support to a wide range of ab initio and career progression courses conducted at SME including the Canine Tactical Combat Care of the Casualty course.

Under the wise direction of the SME LOGWO, WO2 Tillard (RAAOC), the SME Logistics Section procured over \$1 million in support of a wide range of stores and equipment as well as working alongside the Main Q contractor – Ventia to enable ammunition issue and improve processes.

2023 also saw TSW support wider-Defence initiatives. This included the SME Transport Supervisor, SGT Simon MacKenna (RACT) support to the redesigning of the 45M FOV Course in consultation with Chief Driving Instructor – Defence. In addition, CPL Karagiannis (RAE) supported the ADF's first external Land Vehicle Safety audit. SME TSW also directly supported preparations for the ADF Op VANUATU ASSIST 23 in early 2023.



During the Initial Employment Course Sappers execute and practice combat shooting drills



CPL Batta after the completion of his PTI Course.

TSW also celebrated members with personal and professional achievements including CPL Whittington (RAAMC) introducing young Billy into the world and CPL Batta (RAAMC) achieving his career goal of becoming a Physical Training Instructor. GNR Taufua represented the ADF overseas during the ADF Rugby Team's tour of France. Separately, CPL Varley represented her Corp and SME at the Royal Australian Army Medical Corps Conference in September 2023.

Lastly, I would like to say well done for the tireless efforts of all TSW members in 2023 and wish well, those that will post out in 2024.



# STEELE CUP—SAPPERS COMPETITION 2023

## Captain Stuart Bruce

The Steele Cup is a section competition executed by SME, the Home of the Sapper. This year, 40 Sappers across the five SERCAT 7 units (1 CER, 2 CER, 3 CER, 6 ESR and SOER) competed for the Cup. Unfortunately, SERCAT 5 engineer units were unable to provide teams to compete in 2023.

Steele Cup 23 involved eight person sections conducting physically and mentally demanding activities comprising of RAE specific SKA to expose and provide experiential learning through the theme of 'Sappernuity'. The various activities included:

### Endurance PT

Each was required to complete the Army Swim test prior to conducting as many eight-meter rope climbs out of the pool in 15 minutes as possible.

### Virtual Reality Search Competition

Using the FLAIM VR training system, sections were assessed on their ability to search and mark a finds. The system enabled the search activity to occur within an open, indoor setting and statistically identify the user's exact coverage of the lane, amount of cupping, overlap, search speed and drills on a potential find.



SPR Quin from 1 CER placing a charge next to a cluster munition on a simulated airfield.

### Engineer Technical Route Reconnaissance

Sections were required to complete a 750m tactical route reconnaissance and assess its viability of use for a HX-77 with MGB pallets to move to a crossing site. They were assessed on their basic soldier skills and detail of technical information gained during reconnaissance.



1 CER's section rapidly moving items off the simulated airfield.

### Airfield Clearance of Cluster Munitions (Explosive Hazard Reduction)

Each team was tasked with the explosive hazard clearance of an airfield runway. The runway clearance was required to open the APOD (Air Point of Departure) that has been denied by the deployment of cluster munitions. Teams were assessed on their threat assessments, EHR skills, safety considerations and time to safely clear the runway.

### Mechanical advantage

If you have to move several items off an airstrip including a car inside a crater with nothing but hand tools, how would you do it? Each section had limited time to load various items and equipment weighing up to 2000kgs onto a trailer with limited leverage based hand tools. Strength had nothing to do with it, Sappernuity was the answer.

### Horizontal Construction

Sections were required to operate an 850J Dozer and CAT 434E under supervision, to achieve a defensive posture in one location and breach an obstacle in another. The Sappers used plant equipment to dig stage three defensive pits and breach an Anti-Tank Ditch,

### Vertical Construction

Teams were tested on their ability to construct two 2.4m x 2.4m façade walls after a brief introduction to tool safety, operation and frame design. If they rushed to completion neglecting accuracy and minor safety, it could cost them in the end.

### Improvised Gap Crossing Light

Provided with 1x50m, 2x40m and 33 x 2.5m ropes, could you construct a rope bridge to cross a 20m gap? Sections were timed on their construction and assessed on the quality of their bridge, some went too fast and ended up in the water. Slow is smooth and smooth is fast!

### Live Fire Section Defence

Engineers must be prepared for any task and that includes fulfilling their role as a soldier first in a defensive position. Armed with their sections weapons and a claymore they would be required to neutralise up to 20 targets out to 500m.

## Shotgun Competency

After being instructed on how to maintain and operate the in-service shotgun, members retained that knowledge for 40hrs and were tested on their ability to conduct timed weapon drills.

## RSM Forum

This forum focused on sections presenting potential areas of improvement within the Corps from their perspective to the RSMs of the Corps. A great opportunity for the Sapper and unit RSMs alike.



3 CER winning the 5km sprint finish after a 25km paddle.



6 ESR's section on their 20m rope bridge.

## The Great Race

The final task involved a 25km paddle through the Georges River and a 5km sprint through the training area in order to arrive at the Mick Mace Club. On arrival teams completed a timed 300mm wood chop to officially end their competition and wait to find out the winner...

### **Congratulations to SOER for winning the best section and the Steele Cup!!!**

The competition promoted team building, cohesion and the Defence values. Steele Cup generated excellent outcomes for Corps morale, healthy competition and teaming behaviours. The focus on Sappernuity incorporated a blended mix of modernised future capabilities and traditional military engineer functions. What will it look like next year - Come and find out.

## PEELER CLUB

### **Corporal Sefanaia Namoa**

The Lance Corporal Walter Peeler VC Club is like the second home to the Sapper if the School of Military Engineering is the first. Every Engineer at some point in their career has had some form of affiliation to the Lance Corporal Walter Peeler VC Club. It provides a place for Sappers and Junior NCOs to relax or have some fun, from their first exposure to the Corps at IET's, through promotion courses and postings to the School of Military Engineering.

During COVID-19 period, like many other clubs, the Peeler Club came under a state of disrepair. However, during the last 12 months The Peeler club committee has come together to give the club a major face-lift. These repairs included the construction of an RTF Bar and golf simulator, the purchasing of a smoker, TVs, PS5s, Wi-Fi, Games and furniture.

These upgrades have seen a large influx of member from SME and those attending course spending much more time at the Peeler Club. Therefore, the next time you are visiting SME do not forget to bring your clubs.



Various course members enjoying their spare time together at the Peeler Club

## SAPPERS REPRESENTING AUSTRALIA – ADF RUGBY

### Sapper James Webster

The 2023 International Defence Rugby Competition (IDRC) was held in Brittany, France from 16 August to 10 September. Being Posted to SME this year I was selected into the Defence Rugby Union team—my journey through the 2023 IDRC was a remarkable and unforgettable experience.

Representing my country alongside dedicated teammates from all three services was a privilege that allowed me to witness firsthand the power of rugby in fostering unity, discipline, and camaraderie.

Throughout the IDRC, we faced formidable opponents including France, Netherlands, Japan, Ireland and Georgia, and a handful of victories, losses, and hard-fought battles. These experiences taught us the importance of resilience, teamwork, and adaptability—values that are as crucial on the rugby field as they are in military service. Results this year unfortunately did not go our way, losing our opening game to France. Coming off the loss we had big wins against the Netherlands, Japan, and Ireland, Placing us in the trophy final with Georgia. With a close score line at half time the Georgian team ran away with the game in the second half, final score being 55-16.

One of the highlights of our trip was our visit to Villers-Bretonneux, a town with deep historical significance for Australia. It was here, during World War I, that Australian and British forces successfully defended the town from German troops, a pivotal moment in the war. Visiting the Villers-Bretonneux Memorial allowed us to pay our respects to those who served and sacrificed for our nation. It was a solemn reminder of the ties that bind our military service to our country's history. We also had the opportunity to visit Mont Saint-Michel, a United Nations Educational, Scientific and Cultural Organization World Heritage site, a medieval abbey perched on a rocky island in Normandy. In addition, as a team we were invited to the Australian embassy in Paris with incredible views of the Eiffel tower. It was a reminder of the strong ties between our team, our nation, and the Australian diplomatic mission abroad. The embassy served as a welcoming home away from home, where we were able to connect with fellow Australians and share our experiences in the IDRC.



The Australian Army International Defence Rugby Competition Team  
2023.

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# SPECIAL OPERATIONS ENGINEER REGIMENT

The Special Operations Engineer Regiment is undergoing transformational change to ensure it is prepared for competition, crisis and conflict in the Indo-Pacific region, and able to counter our adversaries' most advanced and complex threats. 2023 has seen the conduct of the SOCOMD Capability Review, which remains ongoing, the finalisation of the Special Operations Forces Workforce Review (SOF-WR), and the implementation of the Special Operations Forces Individual Training System (SOF-ITS) Review in May.

The modernised SOF-ITS has been developed to provide broader pathways for SF service within SOCOMD, while achieving greater workforce assurance and enhanced individual capability offerings. The first step of implementation was the execution of the first ever Joint Selection Course which was conducted in Western Australia in May. This resulted in the first cadre of SOE Officers and Soldiers selected for service within the Regiment. Service in SOER is now open to all services and trades; however, our core workforce and our heritage remains proudly in the Corps of the Royal Australian Engineers.

The training pathway, once selected, sees trainees undertake two phases of training. Phase 1 consists of the Special Forces Foundation Integrator Continuum (SF-FIC) over seven months, focusing on the development of SF martial skills including shoot, move, communicate, insert, extract, and survive. Graduates are qualified to operate in SF teams across a range of domains and environments.



SOE conducting technical analysis in a subterranean environment

Phase 2 consists of the Special Operations Engineer Reinforcement Training Cycle (SOE RTC) over six months which prepares our soldiers in the technical aspects of service within the Regiment. This results in trainees qualified to operate in SOE Teams across a range of domains and environments, as well as ready to commence their career-long learning pathway within the Regiment.

The Regiment leverages its foundation in combat engineering knowledge, skill and cunning to service the Special Operations Command, with a focus on the provision of Technical Effects. Along with Special Reconnaissance, Strike and Recovery, and Special Warfare, Technical Effects underpins the utility of Special Operations to the Joint Force during Integrated Campaigning.

## 2 TROOP—ARMY SCHOOL OF MECHANICAL AND ELECTRICAL ENGINEERS

### Lieutenant Kasey Cathcart

In 2023, Army School of Electrical and Mechanical Engineering (ASEME) continued to train and develop RAE's technical tradespeople. Within ASEME, 107 Sappers conducted Initial Trade Training (ITT) across Carpentry, Plumbing and Electrical apprenticeships. Over 56 Sappers graduated ASEME in 2023 who are now posted back to SME to continue their on the job training component of their



Preventative medicine basic hand tools course—field construction task in HADR environment

apprenticeships. We commend these trainees for their efforts pursuing through what is an extended and technical trade course and we wish them the best of luck as they continue to develop their skills at SME.

Whilst completing their ITT, trainees participated in extra-curricular and regimental activities. Some of these activities included; Live Fire Exercises, Fitness and Military Excellence Challenges and community engagement activities. As a result of their eng-inuity, robustness and tenacity, our Sappers have dominated school competitions finally securing the 2023 Wing Cup in a relentless victory. Similarly, they have excelled in the community in both Trade and Military settings. Specifically, they were honoured to provide support to Corryong RSL across a number of services. These Sappers should be proud to have continued and built upon a long standing legacy whilst at ASEME.

RAE Staff have also provided additional training opportunities across ASEME in order to develop capabilities in other corps. Specifically, SGT Oakham executed the conduct of a Basic Carpentry course for Preventive Medicine trainees. This course developed the trainee's skills from basic hand tools all the way up to and including the construction of Field Hygiene Appliances. These trainees went on to complete their assessments in the field environment to an exceptional standard which will be beneficial in the support on future Humanitarian Aid and Disaster Relief response options.

In 2024, the RAE staff will continue to develop and maximise the trade training experience. Further connection with real time stakeholders will ensure we are providing the most relevant and realistic training. Similarly, the RAE staff have been working hard to ensure there is a seamless transition to the new trade training contract with Wodonga TAFE due to take effect in March 2024. Our Sappers will no doubt carry their successes into the coming year and will continue to remain unrivalled by their RAEME brethren in school activities.



2 Troop—the only troop at ASEME

# SO1 MILITARY ENGINEERING UPDATE

## Lieutenant Colonel Neil Bennett

The Defence Strategic Review (DSR) has initiated a dynamic period of change for capability management across Defence. The resultant Accelerated Capability Review has aligned land projects to DSR priorities, and whilst Military Engineering has not been directly called out, engineer capability remains a critical enabler that is universally recognised. That said, engineer projects are not immune to the financial cutbacks and reallocations required by the DSR. Whilst these priorities and future acquisitions are still under review, the Engineer Systems team at Army Headquarters remains committed to delivering the best available capability to our Sappers. The following updates outline the work being completed in this effort and I actively encourage you to engage with the Engineer Systems team with any questions you may have.

### Engineer Modernisation (Lead POC: CAPT Tom Budd)

Innovation of Military Engineering capabilities continues to be a key supporting effort with a number of innovation projects underway, which could materially change the way we provide Military Engineering effects in the future. The innovation landscape within Defence is continuing to evolve with the Defence Innovation Hub being replaced by the Australian Strategic Capability Accelerator (ASCA) under Defence Science and Technology Group. ASCA continues to manage a number of engineer innovation projects, however, Engineer Systems will likely take an increased role in the management of these initiatives in the future as ASCA shifts focus toward DSR priorities. We continue to pursue all available options to develop innovative solutions to the challenges that the Corps faces and the Introduction into Service of these capabilities may occur where the completion of development aligns with the Corps' needs.

Trials and development of the Fleet Agnostic Bridge Health and Usage Monitoring System (FABHUMS) has continued with the most recent serial being conducted at SME earlier this year. FABHUMS will allow the bridging fleet to be used more responsively and flexibly by assessing the load applied to various bridging components and digitising this data for consumption by other systems such as ERP. Development of a prototype system is on schedule to be completed and ready for testing in the near future.

Good progress is being made across the three projects supporting technological advancement in Force Protection Electronic Countermeasure (FPECM) capabilities. CATJAT Claw, under development by RFTEQ, has achieved critical design milestones and commenced sub-system manufacturing. CATJAT Claw is a vehicle mounted FPECM system designed to provide RCIED threat protection through advanced cognitive-based techniques and a more efficient and ruggedized form factor. There are two projects seeking to develop enhanced Personal ECM (PECM) capabilities through separate innovation activities. First is CATJAT Micro, developed via a consortium led by Axiom. The second is Sawtooth developed by Solinnov. Both projects are seeking to develop a soldier wearable advanced multi-mission ECM device to combat RCIED threats. Both are tracking well and meeting all milestones set out in the contracted project plans.

Within the CBRN innovation space, the Broad Spectrum Respirator Canister currently under development is likely to mature within the next 12 months. This capability will significantly increase individual personal protection against chemical warfare agents, as well as toxic industrial chemicals (TICs) within the same canister. The Nano Protective Absorbent Composite (NPAC) CBRN Suit is also a maturing innovation project that is delivering a lightweight protective suit as an alternative to the in service Kestrel suit. The NPAC fabric technology reduces weight and thermal burden, significantly increasing the endurance of users in a contaminated environment.



### **Combat Engineering Capability (POC: WO1 Scott Middlemis)**

The importance of the work involving the sustainment of the equipment bridging fleets has received a boost this year with DSB, IRB and MGB all being included as critically managed assets. This decision was made as a result of the additional demands for equipment and increase usage rates putting pressure on the availability of the fleet. This pressure was exacerbated by increases in maintenance and repair requests due to the extra usage, and ongoing delays in securing repair parts from overseas based OEMs. We continue to work closely with the CASG to ensure sufficient assets are available to achieve our training requirements, particularly for the DSB.

The final elements of the Enhanced Gap Crossing Capability are in the process of being designed and delivered over the course of the next two years. The Bridge Boat Interface (BBI), which replaces the Mack Launch Recovery Vehicle, have all been produced and are available for use with the IRB, BEPB and HX77. The Bridge Bay Cradle (BBC) is in the final stages of the design process, with two prototypes under construction. Delivery of 43 BBCs is on schedule to be complete by May 2025.

### **Combat Rescue Capability (POC: CAPT Tom Budd & WO1 Aaron Pitstock)**

AHQ is leading a series of working groups to shape a future discussion for a review of the Combat Rescue (CR) capability. A comprehensive capability review aims to enable Army to deliver an enduring and fit-for-purpose CR capability. Tactical Rope Rescue (TRR) equipment has been acquired under an Army Minors project and equipment is planned to arrive in units in 2024. TRR Introduction into Service training has been delivered to facilitate the use of this new equipment in units, in particular growing the supervisory qualifications across the trade to enable continuation training in units.



Tactical rope rescue training to support IIS recently acquired TRR equipment

### **Construction Capability (POC: MAJ Dave Rosier & WO1 Aaron 'Nev' Watts)**

The L8120 Project Team continue to work with Prime Contractor Ventia, and their subcontractors JCB, Manitou, Komatsu and Liebherr, to deliver a modernised fleet of Engineer Support Platforms. Initial deliveries of the Medium Crane and Medium Excavator Tracked were conducted in 2023 with the remaining 11 platforms planned for delivery over 2024 and 2025.

The Defence Equipment Hire Program (DEHP) has replaced CORE24 and is now the mechanism for hiring construction equipment. Engineer Systems continues to work with the Land Vehicle Operating Cell to develop the Land Vehicle Operations Manual (LVOM) that will replace all current Land Vehicle Policies (DRTM, SOVOs etc.) and align all variants and tri-service users to a singular Defence policy.



Medium crane IIS training at Lavarack Barracks

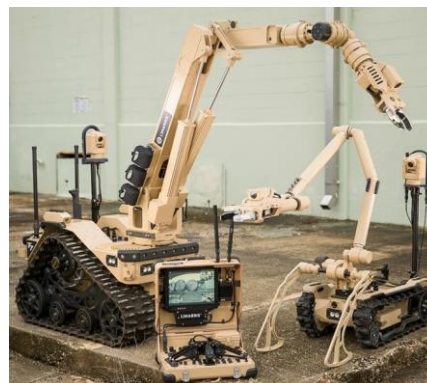


Mediums excavator arrives at SME ready for trial training

## Joint Counter Explosive Hazards. (POC: LTCOL David Evans)

L154-4 Joint CIED achieved Government approval in Feb 23. This milestone has reconfirmed the project parameters for the next three years, and is already seeing the procurement of various EOD tools, including the Heavy, Medium and Light EOD Robots, to replace the ageing fleet. The rollout of these items to the user community is ongoing and will significantly enhance the extant ADF JCIED capabilities. The FPECM Test and Evaluation of the JCREW dismounted system, including the EOD Carry Forward System, has demonstrated very good results on the path to achieving the dismounted Initial Operating Capability (IOC).

L8101-1A Joint Counter Explosive Hazards commenced in Feb 23 as the follow on project to L154-4 in delivering capabilities to counter explosive hazards. Prior to an initial submission to Government in early 2024, the L8101-1A Project Team has begun engaging with stakeholders and gaining awareness on what the current capability brings to the battlespace. L8101-1A provides a unique opportunity to observe and invest, in depth, into step changes in countering explosive hazards. Long held relationships, as well as new ones, are being forged and strengthened as the Project Team seeks to integrate various Search, Neutralise and Exploit capabilities into existing and new platforms. This brings with it the opportunity to remove humans from danger as much as possible, and enhance the quality of the capability. The team looks forward to demonstrating the value this project provides the Integrated Force as we prepare for our Government submission. We also welcome good ideas from our own soldiers, sailor and aviators or engagements as to where your capability could be heading.



L3Harris medium and heavy remote positioning vehicles T4 (right) and T7 (left)

## Chemical, Biological, Radiological, and Nuclear Defence: (POC: MAJ David Brazenor & CAPT Callum Griffiths) (Group Email: [adfcbrndprogram@dpe.protected.mil.au](mailto:adfcbrndprogram@dpe.protected.mil.au))

L2110-1B has conducted a number of successful Test and Evaluation activities on the path to IOC. For Army, this saw BG Ram (8/9 RAR supported by 2 CER) conduct CBRN training as part of EX DIAMOND STRIKE within the 7 Bde WFX in Jul 23. This included CBRN recon and survey, decontamination using the light and medium systems delivered by L2110-1B, and use of the CBRN Collective Training Simulation System (CTSS). Across the other services, RAAF conducted aircraft maintenance and refuelling operations in a CBRN environment, and Navy are conducting first of class trials testing CBRN capabilities on maritime platforms. These training activities are shaping the way for the declaration of Final Operating Capability (FOC) scheduled for Dec 24, which is planned to scale up the capability from an 8/9 RAR Combat Team to the entirety of 7 Bde.

Concurrent to these activities, the Defence wide CBRN training system has been undergoing a full redesign to meet the ADF's CBRND capability requirement. The training system will be designed to operate within domains rather than services, with a targeted application of training, tailored to the roles of each mustering within the joint force. For example, decontamination may no longer be the sole remit of the RAE, but rather organisations at all levels will be trained and equipped to conduct their core roles in a contaminated environment.



8/9 RAR soldiers wearing dress state 4

Capability gaps and shortfalls identified within L2110-1B are being scoped to be addressed within a Technical Refresh activity. The priorities and scale of this activity will be confirmed in line with broader DSR outcomes. Items under consideration for Technical Refresh include:

**Aircrew Individual Protective Equipment:** Military-off-the-shelf (MOTS) capability purpose built to protect the pilot and crew of an air platform operating in a CBRN environment.

**CBRN Survey/Reconnaissance Kits:** Purpose-built marking kits that remove the requirement for ad-hoc substitutes and supports the survivability of the integrated force.

**MPE Communications:** Integrating MPE with in-service communications systems to avoid the degradation of communications with the donning and doffing of MPE.

**Innovation Projects:** Continued development of the Broad Spectrum Respirator Canister.

Further information regarding all Engineer Systems projects can be found at the Engineer Systems collaboration page.

Ubique.



Equipment decontamination—medium

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# MOBILITY & SURVIVABILITY CELL, LAND COMBAT FACULTY

## Major Robert Bailey

The reorganisation of the training enterprise took its first step towards the formation of the Land Combat College on 01 March 2022 by aligning Combined Arms Training Centre (CATC) and its schools under Royal Military College – Australia (RMC-A). On 08 Nov 2023 formal handover of CATC Functions and Roles to RMC-A was marked with a small ceremony held at HQ CATC.

This reorganisation sees RMC-A take on all roles of the HQ CATC and CATT Branch rolled as the Land Combat Faculty. More Information on the Land Combat College and reorganisation of the Army Training Enterprise can be found at the Land Combat College SharePoint page.

The Land Combat Faculty (formally CATT Br) has reorganised into 5 Combat Functions; Dismounted Combat, Mounted Combat, Joint Fires, Mobility & Survivability and Combat Integration, supported by Training Systems cell.

### **The Mobility & Survivability Cell** (formally RAE Trade & Training)

The change in role increases the responsibilities for Training Development in relation to analyse, design and develop phases of the SADL and the eventual removal of responsibility for Employment Category Management. 2024 will be focused on development of the Military Engineering Curriculum and Syllabus that will replace our LMPs in the redeveloped Training system.

The cell leadership remains unchanged with an SO2, SO3 and SM. The ECM and TD teams will reorganise with four WO2 Learning Content Managers in the disciplines of Counter Mobility, Mobility, Survivability and Specialist skills, supported by two SGT Learning Content Creators. The cell will take on additional doctrine roles with the inclusion of a Part time WO2 Doctrine Integration.

### **2024 Staffing**

SO2	MAJ Rob Bailey	LCM SPEC	WO2 Leon Hockings
SO3	CAPT Nyssa Whiley	LCM SURV	WO2 Stephan Davis
CRSM	WO1 Russel Peel	LCC MOB/CMOB	CPL Daniel Fletcher
LCM MOB	VACANT	LCC SURV/SPEC	VACANT
LCM CMOB	WO2 Ray Hepburn	Doctrine(ARES)	VACANT

To contact the cell please send correspondence to HQ LCC – LCF – Mobility & Survivability (hqlcclcf.mobilitysurvivability@defence.gov.au)

### **Administration processes for Learning Management Packages**

One of the areas we can all assist with is the continual improvement of our Learning Management Packages (LMPs). RAE LMPs are developed through the Mobility and Survivability cell (M&S) and subsequently implemented through the Training Establishment (TE) or Unit. LMPs have the ability to be amended and adjusted at any time, by both a TE and Unit, according to capability requirements.

A TE or unit are able to submit a LMP adjustment request (LMPAR) Pages - Training Systems to the M&S cell for amendments to LMPs; to facilitate training outcomes and capability need.

Upon submission, there are a number of elements M&S review to ensure there is a requirement to adjust the LMP; alignment to directed DFRT requirements, modification impacts, resource requirements, duration adjustments and capability adhesion.

# **DIRECTORATE OF OFFICER CAREER MANAGEMENT – ARMY—RAE**

## **Major Taylor Luxford-Sanderson**

I would like to thank the officers within the Foundation Group for their engagement, open and honest feedback and professionalism throughout 2023. It has been a period of significant change, challenges and opportunity for the Corps.

Throughout this period however, members of the Corps have remained highly committed and well represented within all major HQs and training establishments in Army and the Joint Staff. We have continued to provide excellent representation in a number of overseas postings, deployments and executive level support to some of Army's senior officers, which will be maintained throughout 2024. I thank all members who have endeavoured to ensure that remote engagement works through open and honest engagement and communication. The enduring intent of remote engagement is to maximise the timely and tailored career mentoring and advice before critical milestones, whilst also providing more structured feedback after the conduct of selection and promotion boards such as promotion boards and competitive selection phases.

Our Corps is in a healthy position in terms of asset and liability in comparison to most other Corps. This has resulted in the majority of our officers being able to seek out professionally rewarding postings, ensuring engagement in professional development whilst also balancing services needs for critical in corps postings. Whilst some officers have been required to post to roles focused on specific qualifications or service needs to best use their skills, this has remained minimal. I encourage members to seek balance between service need and professional development and clearly communicate such when sequencing their postings and roles to additionally support ones' personal circumstances. Overall, this approach has enabled a more focused delivery of capability to Army and the Joint Force whilst ensuring our members are engaged and supported with utmost effort to sustain retention.

This year, we have continued to see a healthy intake of officers, including recently graduated general service officers, special service officers, overseas lateral transfers, service transfers, Corps transfers and SERCAT 5 transfers. I would like to take this opportunity to welcome them all to the Corps and wish you all the very best in your future careers.

I encourage all members of the Corps to welcome these members and support them on their future endeavours. I strongly believe that RAE continues to attract highly motivated and competent individuals due to the quality of our people and our Corps' collaborative approach. Please continue to make RAE a welcoming place for our fellow officers to learn, grow and achieve.

Finally, the Corps is a flexible and highly skilled workforce with highly qualified combat engineers, civil engineers, project managers, science officers, special forces officers and specialist service officers. All of you have an important role to play in providing capability to our Defence Force. The Corps will continue to be challenged and we will be called upon to conduct our duties throughout the full spectrum of operations. Your efforts are thoroughly appreciated across all ranks and you are very well respected across all Corps.

I encourage all Foundation Group officers to maintain your drive for career success and be open and honest with your intentions. I would like to thank all of the officers and soldiers who I have had the privilege of working with for the past two years. It has been a career highlight to represent you and support your professional development and aspirations. I wish you and your families all the best for 2024 and I look forward to catching up with you in the future.

# DIRECTORATE OF SOLDIER CAREER MANAGEMENT – ARMY – RAE

Thank you for your help this year in managing your careers. RAE continues to have extremely healthy numbers coming through Initial Employment Training and into the units. As of the 01 Oct 23, the RAE is understaffed in certain areas, and over staffed in others. The rank of Sapper is overall very healthy.

The engagement phase for career management cycle (CMC) 25 has commenced with career guidance interviews (CGI) ongoing. It is expected that the majority of the CGIs currently scheduled will conclude towards mid Nov 23 giving CMA a sound understanding of the preferences of those that are due to post in CMC 25. The CGI is also an opportunity to discuss other career matters that you may be seeking answers to for your continued career progression and development as Sappers.

In early 2024, CMA will move into the preparation and selection phases. In this phase we will conduct a significant number of career management boards (CMB) to identify promotions, overseas appointments, competitive selections for postings to organisations such as recruiting, RMC-D, 1 RTB, RMC-A and any other all corps/any corps positions within Brigades, Division HQs that are considered priority appointments both overseas and domestically. The culmination of this will be in July as first round of posting orders and promotions are promulgated.

After a short period, repechages will be due in response to those that may be unsatisfied with their posting order. Second round posting orders will be released in September followed by the engagement phase for CMC 26.

What can you do to help CMA manage YOUR career? It is important that you use the tools readily available to you to best understand your posting opportunities and posting requirements. Visit the CM-A SharePoint page and familiarise yourself with the CMC and key dates, review the gazette and any or all quick reference guides that may be useful (Transfer & Transition, Posting, Promotions etc.). Ensure your PARs are submitted in a timely manner and use the Soldier Career Planning Tool. Engage with your Career Manager regularly and raise any issues or concerns early on to enable us to best support you.

## WO2 PORTFOLIO

**Career Manager: 2023: Combined effort between WO1 Bill LYNCH and WO1 Kit TURNER.**

**2024: CAPT Mathilda THRELFALL.**

During 2023, the RAE WO2 portfolio was managed by WO1 Bill LYNCH who focused on the combat trades and WO1 Kit TURNER who focused on the construction trades. In 2024, CAPT Mathilda THRELFALL will be the career manager for all RAE WO2s both combat and construction.

## COMBAT TRADES – ECN 096, 432 AND 141

**Career Manager: WO1 Bill LYNCH (Jan 23 – Jan 24)**

After a very busy year, I am leaving CMA on posting. WO1 Rob OLTVANJLI has been appointed as the career manager for the RAE Combat Trades (ECNs 096 and 141) and will occupy my seat in early 2024. It has been a very busy year supporting members, Chains of Command, AHQ and project teams delivering on new capabilities that will see significant changes to the way the RAE will operate into the future.

As you are all aware, the combat engineer trade is very strong at the rank of Sapper and we continue to experience combat engineer regiments over establishment. Utilising the junior NCO growth plan, units have the ability to promote to 20% over establishment. This is creating opportunities to manage talent in a regiment more effectively.



## **CONSTRUCTION TRADES – ECN 072, 101, 125, 217–11 / 16, 270, 314 & 393**

**Career Manager: WO1 Golborn TURNER (Kit) (Jan 23 – Jan 26)**

Over the past 18 months, the Subject Four RAE Construction trade continuum has undergone significant redevelopment and continues to be refined. This redevelopment has seen construction trades now undertaking civil accredited courses (across all rank levels) in lieu of the former construction subject four suite of courses. As an interim measure (whilst the Joint Technical Trades contract is established), Wodonga Institute of TAFE has engaged accredited RTOs for the remote delivery of these civil accredited courses.

CMA will continue to monitor the RTO delivered suite of courses and provide details and updates for the next iteration of courses including commencement dates, as soon as they are known. Priority for attendance on these courses will be focused on those individuals that have been promoted utilising a direction to act, followed by individuals that units (and CMA) have identified as being suitable for future promotion.

As 2023 draws to a close, it has been a pleasure to have been able to interact with a significant number of the construction portfolio, across all ranks and to have been in a position to positively influence many of you as your careers progress as well as those individuals that have corps transferred to the RAE.

I look forward to continuing this engagement throughout 2024.

Follow the Sapper.

## Ms Rachael Hart

The Australian Army Museum of Military Engineering (AAMME) is situated inside Holsworthy Barracks. Roughly the size of a Bunnings warehouse, AAMME is in close proximity to Holsworthy Barracks front gate, and the School of Military Engineering (SME).

AAMME was first established in Steele Barracks, Moorebank in 1956, and moved to Holsworthy Barracks in 2014. AAMME was officially opened in its current location by MAJGEN Stephen Day (the Senior Sapper) on 26 Jun 2015.

AAMME mission is to promote the collection of significant material of RAE Corps history and heritage, and implement best practice in the management, preservation, and display of that history and heritage in order to educate Sappers, contribute towards esprit de corps, doctrine and materiel development, and enhance broader awareness of the RAE Corps achievements.

AAMME is open to the public on a Tuesday, Thursday, and the first Saturday of each month between 1000 - 1500h, and Military personnel and Base Support Staff Monday - Friday, including the first Saturday of each month between 1000 - 1500h.

## THE FIRST FEMALE SAPPERS

Though it is well known that members of the Australian Women's Army Service (AWAS) took on important roles during World War II such as cooks, drivers and clerks; fewer know of their roles as searchlight operators and guinea pigs during chemical warfare experiments.

Even fewer realise that these women had held the rank, 'Sapper'.

The Australian Women's Army Service (AWAS) was raised in August 1941. In 1942, it was announced:

'...all AWAS girls attached to units of the Army would in future be entitled to the appropriate rank. Attached to artillery units, they would be known as "Gunners", and attached to the Engineers they would be known as "Sappers". Previously women in the AWAS, except officers and NCOs, have earned the rank of "Private" only.'

In 1943, female Sappers and Gunners were recruited for anti-aircraft defence, and began to train as searchlight operators and spotters. These women also operated sound detectors and searchlight generators. By the end of 1944, searchlight stations were manned exclusively by women.

Between 1943 and 1944, women joined the 1st Australian Field Trials Company RAE. Here, they worked alongside their male counterparts to take part in experiments which sought to determine the effects of mustard gas and other chemical warfare on the human body.

In 1945, female Sappers were deployed overseas for the first time to Papua New Guinea. A select few AWAS members also travelled to Japan after the end of WWII as part of the British Commonwealth Occupation Force (BCOF).



Display panel from the 'First Female Sapper' display at AAMME in March 2023, featuring the ID photos of 38 of the first female Sappers

Despite their efforts and collective enthusiasm, the AWAS was demobilised following the end of WWII. All women were forced to leave the Army.

It would be 35 years before women were allowed to hold the rank, 'Sapper', as they had during WWII.

To commemorate the first female Sappers, the Australian Army Museum of Military Engineering (AAMME) featured a photographic display during Women's History Month in March 2023. A panel in this display featured the ID photos of 38 identified female Sappers; each with a QR Code that allowed visitors to learn a bit of background on each of these women.

Alongside our volunteers, AAMME is working towards creating a permanent display to commemorate the service of these women. This display will feature a WWII searchlight, a mannequin dressed in an AWAS uniform, and a large photographic backdrop of the searchlight operators in action.

The AAMME is located at the entrance to Holsworthy Barracks. To donate, please contact the Curator at [Rachel.hart1@defence.gov.au](mailto:Rachel.hart1@defence.gov.au)



Members of the Australian Women's Army Service searchlight crew cleaning and overhauling the ir searchlight., while one member is reclined—plane spotting



Sappers demonstrating how they would challenge a person when on guard at an anti-aircraft battery. L-R SPR P. J. LESTER; SPR J. E. WILLIAMS; SPR Z. E. D. MOORE; SPR U. J. HAYWOOD; SPR G. M. PICKETT; T/CPL A. M. HALL. AWM 051135







**Army**