



Defence Force Remuneration Tribunal

DECISION

Defence Act 1903
s.58H—Functions and powers of Tribunal

ROYAL AUSTRALIAN ELECTRICAL AND MECHANICAL ENGINEERS – GROUND TRADES (Matter 9 of 2022)

MS I. ASBURY, PRESIDENT

MR A. MORRIS, MEMBER

CANBERRA, 01 FEBRUARY 2023

[1] This decision arises from a listing application from the Australian Defence Force (ADF) for a determination to be made under Section 58H of the *Defence Act 1903*. The listing application¹ seeks to restructure the Royal Australian Electrical and Mechanical Engineers (RAEME) Ground Trades employment categories, establish all base trades as ‘technicians’ and introduce two new employment categories; Marine Technician and Technician Assistant.

[2] We considered this matter in a hearing in Albury, New South Wales, on 8 December 2022 having been informed by an inspection at the Army School of Electrical and Mechanical Engineering (ASEME), Army Land Training Centre, Bandiana, Victoria, on 6 and 7 December 2022. Mr J. Phillips SC appeared for the ADF and Mr N. Doukas for the Commonwealth. Major M. Jefferies and Warrant Officer One M. Nolan appeared as witnesses.

Background

[3] RAEME is the technical Corps tasked with the maintenance of Army’s hardware and equipment. The Corps includes the Army’s Ground Trades employment categories. Ground Trades skills include maintenance engineering, materiel maintenance, configuration, technical assurance and recovery. Soldiers in these categories design, test, fabricate, maintain, repair, rebuild and service vehicles, watercraft, weapons, power generation and communications systems.

Submissions

ADF

[4] The ADF submits that, since the Tribunal last reviewed RAEME Ground Trades in 2006, and the introduction of the Graded Other Ranks Pay Structure (GORPS) in 2008, the work of RAEME employment categories has evolved in qualifications, range of skills, depth of knowledge, range of actions, complexity of actions and complexity of environment.² It states the restructure will rename all base trades as ‘technicians’, introduce two new employment categories, and provide the Army, and wider ADF, with a more contemporary and effective electrical and mechanical engineering capability.

[5] Specifically it seeks to:

- a. rename the Fitter Armament employment category to Weapon Technician and reduce the number of skill grades from nine to four;
- b. rename the Mechanic Vehicle employment category to Vehicle Technician and reduce the number of skill grades from nine to four;
- c. rename the Metalsmith employment category to Material Technician and reduce the number of skill grades from nine to four;
- d. rename the Technician Electrical employment category to Energy Technician and reduce the number of skill grades from eight to six;
- e. rename the Technician Electronic System employment category to Electronics Technician and reduce the number of skill grades from nine to seven;
- f. rename the Mechanic Recovery employment category to Recovery Technician and reduce the number of skill grades from fourteen to five;
- g. rename the Artificer Ground employment category to Artificer Land and amend the structure to incorporate the existing Artificer Mechanic and Artificer Electronic employment categories, and the corresponding skill grades in the current Mechanic Recovery employment category;
- h. disestablish the Artificer Electronic and Artificer Mechanical employment categories and re-establish their skill grades and capability within the Artificer Land employment category;
- i. establish the Marine Technician employment category consisting of four skill grades and pay grade placement at pay grades 3 to 5; and
- j. establish the Technician Assistant employment category consisting of a single skill grade at pay grade 2.³

Commonwealth

[6] At the time of its submission, the Commonwealth was “*of the view that the proposed inspection at the ASEME will form a crucial part in informing its overall position on the ADF’s proposal*”.⁴ Having initially reserved its position, in the hearing the Commonwealth noted the inspection had provided “*a really good opportunity for us to understand the significant changes that have occurred, and seeing how the new RAEME structure fits in with the broader review*”. The Commonwealth stated it was then “*in a position where we won’t oppose the ADF’s submission*”.⁵

Evidence

[7] In his affidavit, Major (MAJ) Jefferies outlined the process of a ‘Land Force 2030 Total Workforce Segment Review’ (TWSR) undertaken by Army which examined the “*training of Army’s technical soldiers to ensure Army was up to date with industry trends. This ensured the Land technical workforce would be capable of sustained operations across the full spectrum of warfare in 2030*”.⁶

[8] We accept his affidavit evidence that the TWSR conducted seven different working groups “*focussed on a different technology sub-segment to understand the likely progression or changes that would be introduced out to 2030 and beyond*” noting “*that emerging technology will have a significant impact on Defence*”.⁷ We agree that the TWSR outcomes have “*streamlined training and employment category structures, aligned technical trades and training with civilian counterparts and sought to maximise the development of a credible military force*” and that “*all of these changes are important first steps to the modernisation of the Defence Technical workforce*”.⁸

[9] In the hearing, MAJ Jefferies detailed the rationale for all categories to be referred as ‘technicians’ in order to “*modernise what we’re doing in the recognition that the work done by the trades people is no longer just a single system. A vehicle mechanic no longer just does mechanical systems, they’re also required to work across systems, including electrical and electronic systems. And that now fits – a Technician is more fitting*”.⁹

[10] Warrant Officer One (WO1) Nolan also gave evidence in an affidavit and at the hearing based on his role with the TWSR as “*the senior soldier representative for all 2,684 soldiers of the Corps*”. We accept his evidence that the “*common thread from the correspondence received was members expressing a strong desire to serve the Corps in either their new employment categories structure or seeking to trade transfer into a new or restructured category*”.¹⁰

[11] At the hearing WO1 Nolan provided subject matter expert evidence about the range of Ground Trades which we observed at the inspection. He described the extensive changes to every category where the myriad of new equipment and technology means overall “*it’s no longer a mechanical system operating, it’s electronics and hydraulics*” and detailed “*the complexity that sits across those*”.¹¹

Consideration

[12] From the outset, we accept that since the Tribunal’s last substantial review of RAEME Ground Trades in 2006¹², and the establishment of the GORPS in 2008, the nature of work has “*significantly evolved, shaped by many influences: the most significant are:*

- a. *increased complexity of modern platforms;*
- b. *trade modernisation;*
- c. *increased competition for technical trades across the wider maintenance engineering and domestic manufacturing sectors; and*
- d. *the requirements for Accelerated Warfare.*¹³

[13] We accept RAEME Ground Trades have, until now, been grouped into three pathways as depicted below:

- a. Mechanical trades - comprising the Fitter Armament, Metalsmith and Mechanic Vehicle employment categories, progressing to the Artificer Mechanical category on promotion to Warrant Officer Class 2;
- b. Electronic trades - comprising the Technician Electrical and Technician Electronic Systems employment categories, progressing to Artificer Electronic category on promotion to Warrant Officer Class 2; and
- c. Recovery – comprising the Mechanic Recovery employment category.

WO1	Artificer Ground					Mechanic Recovery
WO2	Artificer Mechanical			Artificer Electronic		
SGT	Fitter Armament	Mechanic Vehicle	Metalsmith	Technician Electrical	Technician Electronic Systems	
CPL						
PTE						

[14] We considered the evidence provided by the outcomes of the TWSR and accept the Review examined 39 categories across Army, as well as their Navy, Air Force and civilian counterparts and “noted a generational shift in materiel with a significant blurring between mechanical, electrical and electronic systems”.¹⁴

[15] We are most appreciative of the comprehensive inspection of ASEME which provided us with impressive and highly relevant evidence on the workforce structure, roles of all Ground Trades, and the effects of rapid technological advancement. To summarise just one example, we witnessed how “the automated industry is transitioning from internal combustion engine powered vehicles towards the use of alternate power sources such as lithium ion batteries” with “several electric vehicle platforms that will be introduced in the next decade. This transition will have a significant impact on the vehicle maintenance trades and the skills required to maintain these fleets. This will have a secondary impact as Defence moves away from liquid fuelled systems towards battery and alternative fuel sources that will also require maintenance support”.¹⁵ The same applies equally to evidence provided for vehicle recovery, weapons systems, including remotely operated firing systems, marine and robotic and autonomous systems technologies.

[16] We accept the evidence that “of particular importance will be considering the impact of systems that can improve the speed and accuracy of the human decision-making cycle and how Army’s workforce will need to adjust to prepare for the future”. We accept “these systems will require a significant amount of electronic control, and secure communications systems, to operate which will incorporate into the future skill sets of Technicians”.¹⁶

[17] We considered the evidence that a full work value analysis for each of the RAEME Ground Trade employment categories has not been conducted as part of this submission and accept that the TWSR identified that a “simplification of the employment categories, delivered now, would be more appropriate to ensure Army was prepared to meet current strategic concerns”.

[18] Having said that, we note “Army believes retaining the skill grade and pay grade placements for the categories is appropriate for now except for:

- a. the revised skill grades of Weapon Technician Grade 4, Vehicle Technician Grade 4, Material Technician Grade 4, Recovery Technician Grade 4 and Recovery Technician Specialist’ as proposed; and
- b. the new skill grades of Recovery Technician Grade 2, Marine Technician Grade 1, Marine Technician Grade 2, Marine Technician Grade 3, Marine Technician Grade 4 and Technician Assistant as proposed”.¹⁷

[19] We sought further advice on the requested exceptions in the hearing. We accept the evidence of MAJ Jefferies that the application resulted from recognition that the training of these skill grades has, in addition to a Certificate III, included a number of other “specialty” courses included in their initial trade training, and which are providing a greater “work value out at the units”.¹⁸

[20] We considered the evidence that the intent to retain all other extant pay placements is because “Army wants the new career and training structures to be implemented and given time to bed down before formally evaluating the work value and capability improvements of each category

and its skill grades in line with the other Services". We accept that "Army is currently working with Navy and Air Force to develop a Joint Workforce concept that will align the Defence workforce from 2024".¹⁹ We agree Army may return to the Tribunal to seek adjustments to the pay placements if required.²⁰

[21] We considered the establishment of the new Marine Technician employment category and, again, appreciated the detailed advice and information presented at the inspection. We considered the evidence in the submission, and expanded upon by MAJ Jeffries in the hearing, that there is a "need to build that structure" noting the introduction of new marine equipment from "about 2025".²¹ We accept this category will be required to "possess a wide range of technical and maritime skills including the ability to inspect, certify, fault diagnose, repair, and modify land materiel that includes watercraft and their weapon systems, air breathing apparatus and marine safety and survival equipment".²² Further, we accept it will be required to operate in the littoral environment "thousands of kilometres away" with "no support except what is on that vessel".²³ We accept the ADF's intention to establish an *ab initio* recruitment pathway into the Marine Technician category²⁴ and note that transfer from the Fitter/Armament and Mechanic Vehicle categories, who are providing the capability at the moment, will also be available via expressions of interest.²⁵

[22] With regard to the second new category to be established in this structure, we considered the evidence the Technician Assistant is a new skill grade and accept this category, created up to the rank of Sergeant, will "typically work as part of a maintenance organisation assisting technical personnel in the conduct of servicing, repair and maintenance on materiel".²⁶ We accept the ADF also intends to use the Technician Assistant "as part of its Gap Year program offerings".²⁷

Conclusion

[23] As previously stated, our consideration of this matter was greatly aided by the inspection conducted at ASEME. Inspections provide a visual understanding of the evidence and, in this case, the physical demonstrations of technological advancements and new capabilities made these simple and clear to understand. As stated in the hearing, we express our gratitude "for all of the people who participated so willingly and enthusiastically in making it a really memorable inspection and great display of the capability we're trying to achieve. It was a really worthwhile exercise and I think everyone did themselves proud in that whole exercise".²⁸

[24] We agree the outcomes and recommendations from the TWSR have been incorporated in the modernised RAEME Ground Trades proposal and agree the restructure as submitted will "empower members of the Corps to be aligned to better support current and future capabilities in training and when deployed on operations".²⁹

[25] We agree the selected categories, at paragraph 18 of this decision, warrant an increase in skill grades, and subsequent pay grades. We accept the evidence provided by MAJ Jefferies that the "amount is an appropriate recognition of the work value they provide" coupled with "the amount of training they were doing and the complexity. It was recognised that it was well above the Certificate III and that additional skilling enabled them to provide a higher work value".³⁰

[26] We accept that, with the outcomes of more extensive work value reviews, it is likely the ADF will return to us and we welcome that when considered necessary.

[27] We agree that, under the new structure all technicians will progress through their individual technical and leadership training requirements on parallel paths to the rank of Sergeant and, when promoted to WO2, will be placed in the Artificer Land category responsible for technical management and assurance across all trades.

[28] Finally, we agree the restructure of RAEME Ground Trade employment categories as submitted will provide the Army, and the wider ADF, with a more contemporary and effective electrical and mechanical engineering capability and agree the restructure into a single pathway as detailed below:

WO1	Artificer Land							
WO2								
SGT	Weapon Technician	Vehicle Technician	Material Technician	Marine Technician	Energy Technician	Electronics Technician	Recovery Technician	Technician Assistant
CPL								
PTE								

[29] Determination 3 of 2023 gives effect to this decision from 11 May 2023

MS I. ASBURY, PRESIDENT
MR A. MORRIS, MEMBER

Appearances:

Mr J. Phillips SC for the ADF assisted by Mr P. Flintoft

Mr N. Doukas for the Commonwealth assisted by Mr H. Miller

Witnesses:

Major M. Jefferies, Technical Workforce Segment Review, Directorate of Logistics – Plans, Army Headquarters.

Warrant Officer One M. Nolan, Technical Workforce Segment Review, Directorate of Logistics – Plans, Army Headquarters.

¹ DMR/OUT/2022/19 Listing Application: *Royal Australian Electrical and Mechanical Engineers – Ground Trades employment categories* dated 23 August 2022.

² ADF Submission *Royal Australian Electrical and Mechanical Engineers – Ground Trades Matter 9 of 2022* (ADF1) page 52 paragraph 4.13.

³ ADF1 page 4 paragraph 1.10.

⁴ Commonwealth submission *Royal Australian Electrical and Mechanical Engineers Ground Trades Matter 9 of 2022* (CWLTH1) dated December 2022 page 13 paragraph 53.

⁵ Transcript - *Matter 9 of 2022* - 8 December 2022 page 34 lines 34 to 39.

⁶ Affidavit of Major M A Jeffries (ADF 3) dated 15 November 2022 page 3 paragraph 14.

⁷ ADF3 page 4 paragraphs 15, 16 and 18.

⁸ ADF3 page 8 paragraph 32.

⁹ Transcript page 10 lines 25 to 29.

¹⁰ Affidavit of WO1 M R Nolan (ADF5) dated 15 November 2022.

¹¹ Transcript page 29 lines 8 to 35.

¹² *Royal Australian Electrical and Mechanical Engineers Ground Trades Restructure Statement* dated 21 December 2006 (ADF2).

¹³ ADF1 page 2 paragraph 1.3 and footnote 3 “*The rate at which these changes are occurring is increasing, reducing the time available to adapt or respond. Army call these changes Accelerated Warfare*”.

¹⁴ ADF1 page 7 paragraph 2.2.

¹⁵ ADF1 page 50 paragraph 4.9

¹⁶ ADF1 page 51 paragraph 4.11.

¹⁷ ADF1 page 90 paragraph 7.3.

¹⁸ Transcript page 11 lines 35 to 44.

¹⁹ ADF1 page 90 paragraph 7.4.

²⁰ ADF1 page 90 paragraph 7.4.

²¹ Transcript page 13 lines 38 to 40.

²² ADF1 page 68 paragraph 5.19

²³ Transcript page 14 lines 9 and 10.

²⁴ ADF1 page 68 paragraph 5.19.

²⁵ Transcript page 31 lines 6 to 9.

²⁶ ADF1 page 75 paragraphs 5.52 and 5.53.

²⁷ ADF1 page 64 paragraph 4.40.

²⁸ Transcript page 36 lines 14 to 19.

²⁹ ADF5 page 8 paragraph 38.

³⁰ Transcript page 12 lines 1 to 27 and page 13 lines 1 to 7.