



AUSTRALIA

Inquiry into the Department of Defence Annual Report 2021–22

Submitted to

Joint Standing Committee on Foreign Affairs, Defence and Trade
Foreign Affairs and Aid Subcommittee

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BACKGROUND

Following an invitation from the Joint Standing Committee, RAND Australia provides this submission in relation to the Inquiry into the Department of Defence Annual Report 2021–22. The Inquiry seeks advice specifically on three topics: workforce recruiting and retention, Space Command and capability, and support to national crisis.

RAND is a respected, nonpartisan entity with a mission to improve policy and decision-making through evidence-based research and analysis. RAND Australia manages multidisciplinary research teams that combine local talent from our small Australian office with over 1,000 research experts from RAND offices in the United States and Europe. Those teams address a variety of defence, national security, social and economic well-being, education, labour and health topics.

WORKFORCE RECRUITMENT AND RETENTION

The Defence Annual Report 2021-22 identified the long term requirement for Defence to grow an additional 18,500 workforce by 2040¹. Low recruitment performance and high separation rates resulted in Defence not achieving budgeted targets for 2021-22 to increase the size of the ADF; but instead the average funded strength went backwards by over 500 personnel. This is a matter of some concern that requires correction, especially given the challenges in attracting and retaining personnel in a low unemployment environment.

Simplistically, Defence’s strategy requires that successful recruitments exceed separations by a considerable margin to facilitate a growth in ADF workforce of around 1,000 per year. While this may bring a focus onto recruitment activities, to do so without attending to high separation rates is a futile strategy. Even if recruitment activities can exceed targets, there are constraints and lead times associated with the training pipeline, and with increased separation representing potential losses in intellectual capital and increased costs.²

The U.S. Army has successfully managed its workforce in recent years through an emphasis on initiatives aimed at retaining personnel, despite low recruitment figures.³ While this is a reasonable approach to some extent, an excessive reliance on retention can impede organisational renewal and workforce ‘stagnation’.⁴ Hence ‘healthy’ separation rates should lie in a range between 5 and 10% - noting that what is healthy will vary for each Service and within each Service.⁵ Importantly, one cannot even read too much from an average separation rate. The damage of high losses in critical areas, such as junior non-commissioned officers and junior officers, cannot be adequately offset by retention in other areas.⁶

Notwithstanding the cautions above, a review of available data reveals that separations in the three Services were higher in 2021/22 than over the past decade (Figure 1); and separations significantly exceeded recruitments (Figure 2). Although the data in these figures do not include reservist numbers, the Total Workforce System⁷ introduced in 2016, established different service categories and an ability for personnel to move between those categories. While this may have some bearing on workforce management, we do not believe it affects the fundamental issue of separation exceeding recruitment numbers.

¹ Department of Defence (2022) 2021-22 Annual Report, p 6. Note that a portion of that number, likely over 15%, would be APS workforce, the remainder ADF.

² For an early recognition of the consequences of high ADF turnover, see Cathy Downes (1988) High Personnel Turnover: The Australian Defence Force is not a Limited Liability Company, Canberra Papers on Strategy and Defence No 44, Strategic and Defence Studies Centre, ANU, Canberra, pp 49- 63.

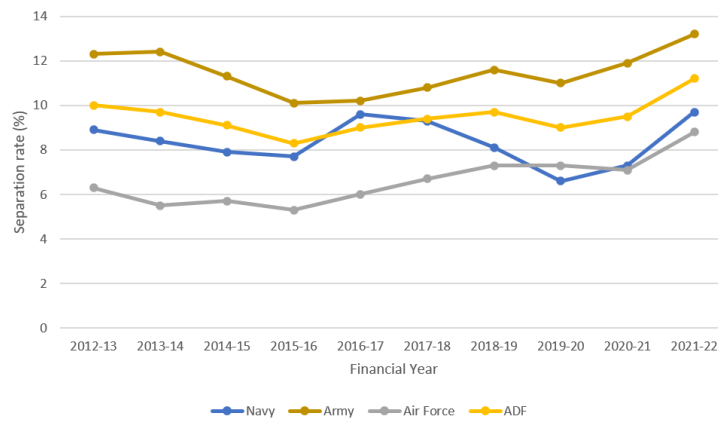
³ See Steve Beynon, The Army is Having No Issue Retaining Soldiers, Amid a Crisis Recruiting New Ones, 26 September 2022, <https://www.military.com/daily-news/2022/09/26/army-having-no-issue-retaining-soldiers-amid-crisis-recruiting-new-ones.html>

⁴ In addition to the need for ongoing renewal, reliance on retention will lead to an ageing ADF workforce and a ‘block obsolescence’ risk for the future.

⁵ Whilst the following analysis identified 7% as an ‘ideal rate’, we believe the ideal level of retention will vary for each Service and in the context of its situation at a given point in time: Keith Thomas and Steve Bell (2007) Competing for the Best and Brightest: Recruitment and Retention in the Australian Defence Force, Security Challenges 3:1, pp 97 – 118.

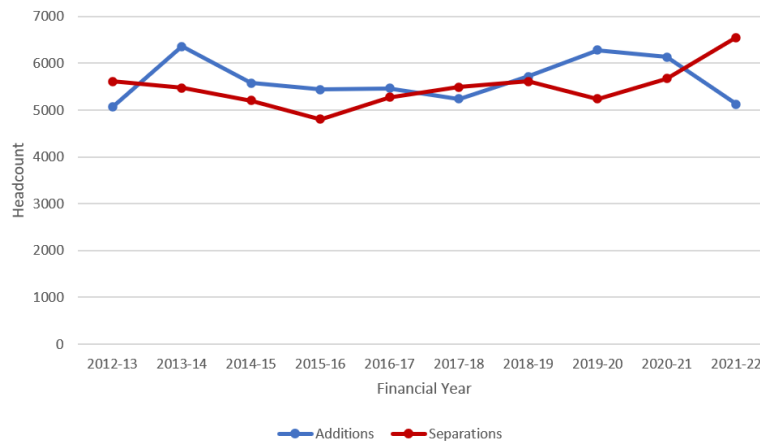
⁶ See Jake Finnane (2022) A Leaky Sieve: Retention in the ADF, The Cove, <https://cove.army.gov.au/article/leaky-sieve-retention-adf>.

⁷ Robert Gibson (2022) Total Workforce System Explainer, The Cove, <https://cove.army.gov.au/article/total-workforce-system-explainer>.



Source: Data from Department of Defence, Annual Reports 2012-2022,
<https://www.defence.gov.au/about/accessing-information/annual-reports>

Figure 1 – ADF Separation Rates over the past Decade



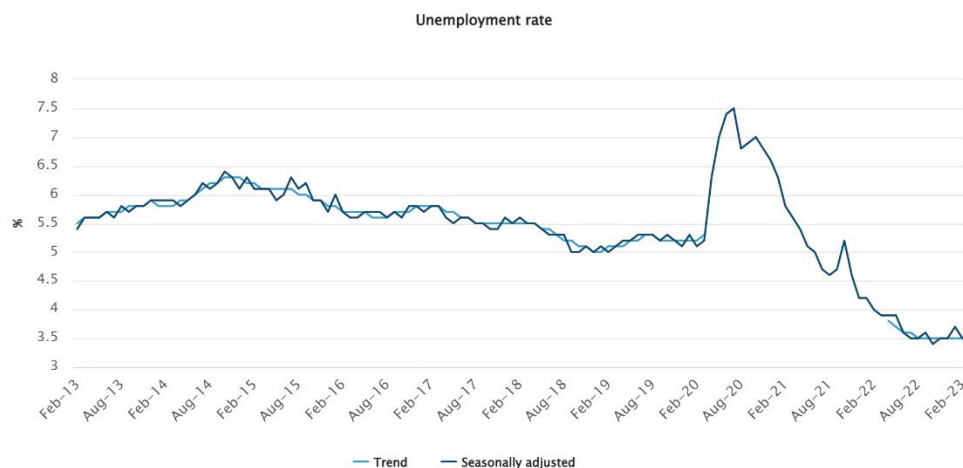
Source: Data from Department of Defence, Annual Reports 2012-2022,
<https://www.defence.gov.au/about/accessing-information/annual-reports>

Figure 2 – Additions vs Separations over the past Decade

Decisions to stay or remain in the ADF are a product of extrinsic and intrinsic factors. ADF members may sacrifice pay satisfaction for job satisfaction, or vice versa. However, they are less likely to tolerate a situation in which both extrinsic and intrinsic motivations are low. Arguably Defence has relied in the past on intrinsic factors such as accomplishment and pride in serving the nation, however this may not be enough if personnel find themselves undertaking duties they did not expect, or if the duties they expected to undertake failed to provide a sense of accomplishment.

Without reliable exit survey data, attributing the increased separation rate can only be speculative. There is the prospect that the increasing prevalence of ADF undertaking domestic roles during COVID and disaster responses may have impacted job satisfaction amongst ADF personnel in recent years. However, more influential is that the year coincided with a drop of unemployment from 7.5% to 3.6%, resulting in comparatively attractive external job prospects and conditions – see Figure 3.⁸

⁸ The following study identified a strong correlation between unemployment and turnover in the Australian Army, see James Warn (1994) Factors influencing the turnover of skilled personnel: a case study, Asia Pacific Journal of Human Resources 32:1, pp 29-40.

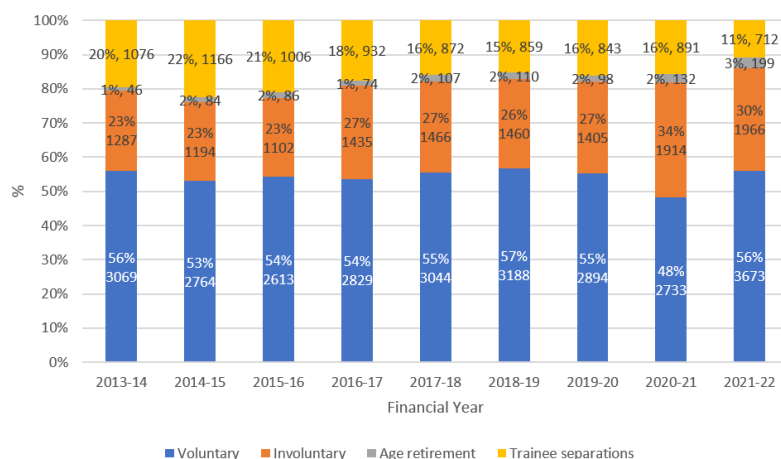


Large month-to-month changes occurred during the COVID-19 pandemic, resulting in multiple trend breaks. The ABS recommends caution when using trend estimates published in spreadsheets in this release for this period. Information on trend breaks can be found in Labour Force, Australia methodology, February 2023.

Source: Australian Bureau of Statistics, Labour Force, Australia February 2023

Figure 3 – Australian unemployment rate

Depending upon unemployment and the ADF's comparative value proposition for employees, there is a prospect that recent increases in voluntary separations are a transient predicament, although this will not be clear until there is visibility of FY 2022-23 separation data to determine if the trends are continuing or being arrested. Notwithstanding, in order to achieve the ADF's objective workforce numbers (and retention of expertise), action is needed. Such action in respect of improving retention involves a combination of identifying and correcting irritants; as well as higher financial compensation (such as sign-on bonuses, allowances and paying above rather than at or below market rates). Such compensation should be targeted at critical categories but potentially also at high performing individuals.⁹



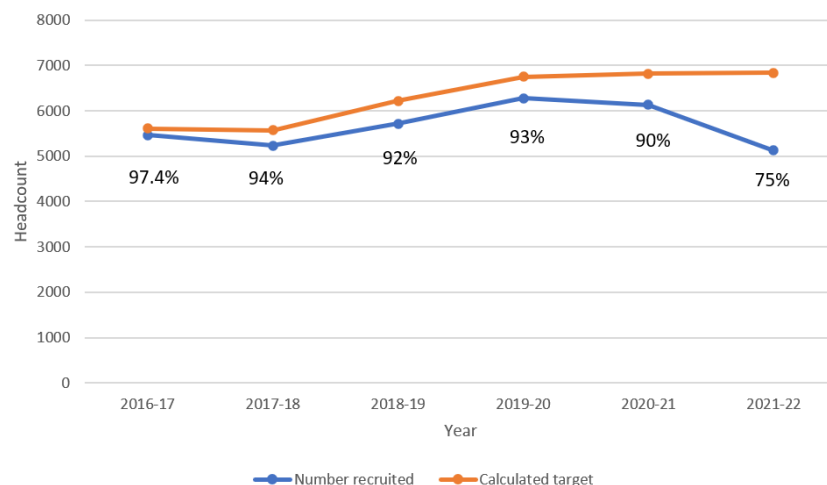
Source: Data from Department of Defence, Annual Reports 2012–2022, <https://www.defence.gov.au/about/accessing-information/annual-reports>

Figure 4 – Reasons for ADF Separation

⁹ RAND has undertaken extensive research to support retention of military personnel, see <https://www.rand.org/topics/military-personnel-retention.html> and, specifically on the use of compensation: Beth Asch (2019) Setting Military Compensation to Support Recruitment, Retention, and Performance, RAND Report 3197, https://www.rand.org/pubs/research_reports/RR3197.html

All three Services have experienced an increase over the decade in involuntary separations (Figure 4). Involuntary separations are associated with personnel who are medically transitioned from the Service, found to be unsuitable for duty, or deceased. The increase in such separations over the past decade has been statistically significant as a percentage, but even more so in real terms. The rise could reflect that individual fitness (physical, mental or otherwise) of personnel has reduced over that time, or that standards and employment review efforts have been tightened, or both. This raises questions as to whether there should be more leniency in situations where individuals do not require high levels of fitness for their duties, or if greater access to recategorisation within the ADF may relieve the impact of high separation rates.¹⁰ We also note that in addition to the impact upon the ADF workforce, involuntary transitions represent a higher risk from a mental health perspective.¹¹

Recruitment performance appears to have fallen substantially in 2021-22 (see Figure 5). While there is no available data to explain this fall, it is possible that similar factors that may have influenced separation may also affect recruitment. For example, a tight labour market typically reduces the number of qualified personnel who consider military service. Recruitment experienced a shortfall in 2021-22 despite an increase in recruitment advertising.¹²



Source: Data from Department of Defence, Annual Reports 2012-2022,
<https://www.defence.gov.au/about/accessing-information/annual-reports>

Figure 5 – Achievement against Recruitment Targets

In planning the workforce out to 2040, it is important to not only understand the quantum of workforce, but also the changing nature of work in the future ADF. Increasing use of robotics and autonomous systems, as well as reliance on cyber and space, will change the skills that the ADF needs. Noting the likely lead times to achieve the future workforce, planners should anticipate changes and the required adjustments to recruitment and reskilling of workforce. These changes may include a consideration of whether the changing nature of duties demand a review of the members required in uniform (MRU). For example, with shifts in the way that systems are remotely operated and supported, and an increasing focus on cyber operations, there may be a case for more functions to be undertaken by workforce that is not part of the ADF, but part of the broader defence enterprise.

¹⁰ An example of RAND work to review eligibility standards is Bruce Orvis et al (2022) Resources Required to Meet the U.S. Army Reserve's Enlisted Recruiting Requirements Under Alternative Recruiting Goals, Conditions, and Eligibility Policies, RAND report RR-A1304-1, https://www.rand.org/pubs/research_reports/RR-A1304-1.html

¹¹ Royal Commission into Defence and Veteran Suicide (2022) Interim Report, <https://defenceveteransuicide.royalcommission.gov.au/system/files/2022-09/interim-report.PDF>, p 73.

¹² Data from the Department of Finance suggested an increased spend on recruitment advertising by over 10% in FY21-22 compared to the previous year, see <https://www.finance.gov.au/publications/reports/advertising>

Additionally, given the recent outcomes of extant approaches to recruitment and retention, there is a case to examine alternative approaches. Such approaches might examine ways to introduce diversity and potential barriers associated with younger generations and expectations about job satisfaction and work-life balance. It might also consider alternative employment programs in fields of highly competitive civilian industries, especially through reserve service options.¹³

Whereas there are unique aspects of ADF workforce management, there are advantages in also considering the broader perspective of workforce for the broader defence enterprise, including APS and industry. Movement of people between these workforces may be of individual and collective benefit, whether that be to utilise ADF expertise in the APS or industry, to broaden experience or to introduce specialist skills into Defence from industry. Accordingly, a more coordinated approach to workforce management across the defence enterprise may help the ADF to achieve its specific objectives.¹⁴

A notable challenge will be the future submarine workforce, given the pathway identified by the Prime Minister on 13 March 2023.¹⁵ The RAN has had difficulty crewing the Collins fleet, whereas future submarines will require more crew, some requiring higher education and skills, and committing personnel to even longer periods of being submerged. These three exacerbating factors will require deliberation of ways in which both intrinsic and extrinsic motivations can attract more personnel.

Defence in early 2022 commissioned a Recruitment and Retention Tiger Team (R2T2), which over the past 12 months has identified several ‘quick wins’ and other recommendations to address the deficit between recruitment and retention. However, these initiatives may take time to take effect and, in the absence of reliable survey data, it will be difficult to assess causality of such interventions in retention of personnel.

We believe the work of the R2T2 will help correct the adverse trends in recruitment and retention, with appropriate support and monitoring of implementation of the associated interventions. However, securing Australia’s future ADF workforce is a complex and ongoing challenge, which may best be achieved through an ongoing analysis function that informs policy, rather than the periodic conduct of reviews.¹⁶

SPACE COMMAND AND CAPABILITY

Space Command was mentioned in the annual report, particularly the update on page 249. Space Command was established during the term of the 2021-22 annual report, under AVM Catherine Roberts. During this period, the main priority for the command was to establish capability management arrangements. Such arrangements are important, as space capabilities require management of resources, skills and processes that will be different from other areas of defence.

Whilst a joint command, space sits under Air Force rather than Joint Capability Group. Although their placement might be argued, Air Force has managed the space domain awareness function from the outset; and there are synergies between Space Command and Air Force, with space being an extension of the air environment. Moreover, the only operational unit under Space Command is 1 Space Surveillance Unit, which was previously under Air Command.¹⁷ In addition to the establishment of governance and processes, an early activity for the Command was the transfer of

¹³ Stephen Dalzell et al (2019) Manpower Alternatives to Enhance Total Force Capabilities, RAND Report 3055, https://www.rand.org/pubs/research_reports/RR3055.html

¹⁴ There are examples of this sort of cooperation, such as the employment partnership between Army and BHP, see <https://www.bhp.com/careers/get-to-know-our-business/bhp-and-department-of-defence-partnership>

¹⁵ Prime Minister of Australia, AUKUS Nuclear Powered Submarine Pathway, media release 14 March 2023, <https://www.prm.gov.au/media/aukus-nuclear-powered-submarine-pathway>

¹⁶ Examples of successful models for ongoing workforce analysis are represented in three of RAND’s Federally Funded Research and Development Centres supporting the U.S. DoD: the [Workforce, Development and Health Program](#) in Project Air Force; the [Personnel, Training and Health Program](#) within the Arroyo Center; and the [Forces and Resources Policy Program](#) in the National Security Research Division.

¹⁷ It was previously known as 1 Radar Surveillance Unit and 1 Remote Sensor Unit, under the Surveillance and Response Group of Air Command.

satellite communications capability management from Joint Capability Group, including sponsorship of the most significant project, JP 9102¹⁸.

The space domain is important primarily in terms of the services that space capabilities provide to support ADF activities in the other domains, not to mention the broader reliance in the civil sector to space services.¹⁹ In particular, there are three classes of space services: satellite communications, earth observation, and precision navigation and timing (PNT). Assurance of these space services represents a fourth class, comprising space domain awareness and space control. Other joint space functions may include missile defence, space operations and spacelift.²⁰

Effective management of space services is challenged in two ways. First, many of the associated capabilities are not owned or operated by the ADF, but by allies, and in particular by the U.S. military. Some other services are provided through commercial satellite providers. Second, space services are associated with broader joint functions under the remit of other parts of defence.

Australia's establishment of a space agency and a Defence Space Command reflect a shift from a customer of space services to a more active participant in the space domain. While there are some prospects of greater sovereignty of Australian space capabilities²¹, we recognise that Australia benefits greatly from access to U.S. systems, across all of the space services and functions. Importantly, this access will continue even with the development of greater sovereignty, which will allow some increased control, redundancy and the ability to contribute services for allied access. This shift coincides with RAND analysis that recommends the U.S. take a more collaborative approach to design space systems that will integrate with allies.²² The aggregate effect would be a stronger capability for the ADF, as well as advantages across the allies, for the three space service areas as well as assurance activities and other space functions conducted within a framework referred to as Coalition Space Operations.²³ Australia's Space Command is well integrated into this system and the supporting development of operating concepts and architectures.

As a new capability manager, it is understandable that there may be teething problems in Space Command establishing relationships and demarcations with other parts of Defence. This includes the relationship with CIO Group, who are responsible for satellite communications operations; with the Intelligence Group, who are responsible for intelligence, surveillance and reconnaissance (ISR) capabilities associated with earth observation; with Joint Capabilities Group, responsible for joint systems including PNT; with the Services in respect of workforce; and with force design and acquisition areas of Defence. The complexity of such relationships in space capability is similar in other nations and is unavoidable in Australia, unless a fundamentally different approach is taken to Defence's organisational design.

From a capability management perspective, Space Command is largely focused on future capabilities, although Australia does manage extant space capabilities, especially in the area of space domain awareness.²⁴ While future capabilities include IIP projects such as JP9102, there are also priorities for working with industry on innovation and rapid acquisition. Space Command also needs to be concerned with the full spectrum of fundamental inputs to capability (FIC), and AVM Roberts has identified that her top priority is to grow, educate and retain the space workforce.²⁵

Space is often discussed in terms of being the fourth operational domain in warfare. As a domain in which capabilities provide military advantage, it is widely characterised as congested, contested and

¹⁸ JP9102 is the satellite communications major acquisition to provide continuity from end of life of current systems, including Australia's partnership in the WGS constellation, see <https://www.defenceconnect.com.au/key-enablers/11518-jp9102-the-backbone-that-makes-next-gen-capabilities-possible-airbus> for further background.

¹⁹ Department of Defence (2022) Australia's Defence Space Strategy, <https://www.airforce.gov.au/our-work/strategy/defence-space-strategy>

²⁰ U.S. Joint Publication 3-14 (2020) Space Operations, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_14Ch1.pdf

²¹ Australia's Defence Space Strategy, pp 27-31.

²² This is discussed in a RAND research report yet to be released on allied integration in space by design.

²³ Centred around the Coalition Space Operations Center (CSPOC) at Vandenberg Airbase, established with allied embeds from 2018 as a follow on from the Joint Space Operations Center.

²⁴ The ADF assets for which primarily are under ISSU.

²⁵ Department of Defence (2023) A year on for Defence Space Command, <https://www.defence.gov.au/news-events/news/2023-03-03/year-defence-space-command>

competitive.²⁶ Kinetic activities in space create a risk of space debris, which may cascade to disrupt the entire orbiting environment.²⁷ Thus Australia, and like-minded nations, have committed not to conduct anti-satellite activities.²⁸

Defence has recognised the importance of maintaining advantage in space, and have openly discussed the need for electronic, non-kinetic means of maintaining such advantage.²⁹ While such an approach does not directly lead to a risk of space debris, it nevertheless could lead to greater contestation in space, normalising behaviours in which space systems are targeted. Thus, efforts to deter aggression in space could have the unintended consequence of escalating behaviour.

Even without kinetic targeting of space systems, the number of items in orbit, including debris, creates a substantial potential for collisions and the possible subsequent loss of entire orbital shells. The international community lacks agreed space traffic management (STM) governance.³⁰ The Australian Government should consider engagement in pursuit of an international governance institution for STM, as well as deciding which agency should take the lead – as whereas Space Command is the only agency with associated capability, arguably STM is not a (sole) Defence responsibility.

SUPPORT TO NATIONAL CRISIS

Overlapping disasters are unfortunately becoming an increasingly common feature in Australia where the nation has had to grapple with more frequent environmental events (such as bushfires and floods), in addition to other challenges such as the COVID pandemic. This is testing our national resilience, in terms of our society's ability to resist and recover from natural disasters, failures of critical infrastructure, or hybrid or armed attacks. This ability is a product of our civil preparedness and military capacity. The ADF has lent assistance in these domestic emergencies, as directed by the Government.

But such assistance is promoting public perceptions, such as those noted in the 2020 Royal Commission into National Natural Disaster Arrangements, that the ADF is always readily available to lend assistance. The Royal Commission noted a public perception not only that the ADF should be available, but that greater use be made of the ADF in responding to disasters. The Commission noted that this was not the case, nor a reasonable expectation, but did not identify a resolution.³¹

Defence's most recent strategic guidance suggests that such humanitarian assistance and disaster response (HADR) efforts demand a higher priority in defence planning.³² It will be of interest to see if this is translated into investment in the upcoming announcement of the Defence Strategic Review (DSR).

On one hand, the concept of the ADF being prepared for conflict, but utilised for HADR tasks outside of conflict, appears a reasonable approach in order to optimise use of the ADF. However, even if the DSR increases Defence's capacity for these tasks, we highlight four risks with this approach: preparedness, economies of skill, retention and the prospect of concurrent demand.

²⁶ Douglas Ligor and Bruce McClintock (2021) Nasty, Brutish, and Short – the Future of Space Operations in the Absence of the Rule of Law, NATO Legal Gazette 42, pp 53-67, see https://www.rand.org/pubs/external_publications/EP68859.html

²⁷ See Kessler Syndrome, in Bruce McClintock et al (2021) Responsible Space Behavior for the New Space Era, RAND Perspective 887-2, <https://www.rand.org/pubs/perspectives/PEA887-2.html>, p 17.

²⁸ Dan Lambeth, Australia to ban direct ascent anti-satellite tests, Space Australia, 13 March 2023, <https://spaceaustralia.com/news/australia-ban-direct-ascent-anti-satellite-tests>

²⁹ See Andrew Greene, Australia's Space Command pushes for 'soft kill' capability to take out enemy satellites, 3 March 2023, <https://www.abc.net.au/news/2023-03-03/adf-space-command-pushes-for-soft-kill-capability-for-satellites/102045496>

³⁰ Dan McCormick et al (2023) Cross-Domain Lessons for Space Traffic Management, RAND report A2208-2, https://www.rand.org/pubs/research_reports/RRA2208-2.html

³¹ Commonwealth of Australia (2020) *Royal Commission into National Natural Disaster Arrangements Report*, p 187. <https://naturaldisaster.royalcommission.gov.au/system/files/2020-11/Royal%20Commission%20into%20National%20Natural%20Disaster%20Arrangements%20-%20Report%20-%20%5Baccessible%5D.pdf>

³² Department of Defence, 2020 Defence Strategic Update, <https://www.defence.gov.au/about/strategic-planning/2020-defence-strategic-update>, p 17.

At any given time, ADF units are in different stages of the force generation cycle, with some elements preparing, some on operations and some reconstituting.³³ Thus, ADF resources that are redirected to HADR tasks will typically impact upon an aspect of defence capability, often interrupting the ‘readying’ phase and thus potentially impacting on the preparedness element of the force generation cycle. While this may be a valid choice to prioritise disaster relief activities, it is important to acknowledge the potential for an impact upon other defence objectives.

Many HADR tasks such as airlift and sealift operations may coincide with training activities, that utilise the training (and potentially provide training value) to ADF personnel. Such tasks also leverage the specialist capabilities of the ADF that state and local governments do not have.³⁴ Such assistance may be said to be highly aligned with Defence capabilities.

Some domestic support activities involve purely manual labour that neither requires nor provides training value. There are other national crisis roles that require specialised training (such as fire fighting or emergency response) that diverges from the skills required by the ADF. In these cases, there are no economies arising from the ADF undertaking such tasks, as required training (and equipment) diverges from the skills required for military operations. A good example is that the ADF does not undertake aerial fire fighting, and instead such activities are better suited to dedicated arrangements.³⁵ Such areas of assistance are poorly aligned with Defence capability and diverge from the economies of skills associated with the areas of assistance noted in the Australian Government Disaster Response Plan.³⁶

As discussed earlier in this submission, there is the prospect, albeit speculative, that employment of ADF personnel on domestic (COVID and HADR) tasks may have contributed to higher levels of separation seen in 2021-22. This may be a necessary cost of the attending to national priorities; nevertheless it would be informative to analyse if there is any correlation between separations and employment on domestic tasks.

A final consideration is the prospect that a national crisis may coincide with a situation in which the ADF is committed to other operations. While such a concurrency challenge can be coincidental, the prospect of hybrid warfare in which civil infrastructures and populations are targeted means that this is a likely reality of future conflict. This represents a risk to presumptions of ADF availability during a national crisis, and may support an alternative model that leverages a more whole-of-society approach to response plans.³⁷

CONCLUSION

The team at RAND Australia appreciates the opportunity to contribute a submission to the Joint Standing Committee’s review of the Defence Annual Report 2021-22. We would like to reiterate our key points that the ADF requires ongoing analytic support to personnel policies, if the ADF is to manage recruitment and retention risks for the future force; that Space Command has an important role in Australia’s assured access to space services and cooperation with allied capabilities; and that a whole-of-society approach is needed to promote national resilience and recovery in the face of future national crises.

³³ As exemplified by the Army readying-ready-reset doctrine, see Australian Army (2020) The Future Ready Training System, https://cove.army.gov.au/sites/default/files/future_ready_training_system_strategy.pdf

³⁴ Nicholson et al (2021) Defence Mobilisation Planning Comparative Study, RAND report A1179-1, https://www.rand.org/pubs/research_reports/RRA1179-1.html

³⁵ Royal Australian Air Force, Firefighting, Air Force website (no date), <https://www.airforce.gov.au/our-work/humanitarian-support/firefighting>

³⁶ Australian Government (2020) COMDISPLAN 2020, <https://www.homeaffairs.gov.au/emergency/files/plan-disaster-response.pdf>, p 13.

³⁷ Nicholson et al, p 119.