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CHAIR'S COMMENTS

Welcome to Issue No. 200 of the *Australian Defence Force Journal*, a commemorative achievement coinciding with the 40th anniversary of the *Journal*'s reintroduction in 1976.

As the *Journal* refocuses more closely on the 'profession of arms' in Australia, I am particularly pleased at the breadth of related articles in this issue, on a range of topical subjects and with contributions from relatively junior to quite senior ADF officers. There is also a highly-recommended article from Professor David Lovell at ADFA.

The Board has awarded the 'best article' prize to Captain Denna Fryer for her article on 'Women, peace and security', in which she argues that positive discrimination measures in the ADF may do more harm than good in the pursuit of equality between men and women in the Services. In addition to featuring as the lead article, she will be awarded a certificate signed by CDF and the Secretary.

As usual, there is also a selection of book reviews. We remain keen to hear from readers wishing to join the list of reviewers, who are sent books provided to the Editor by publishers. If you are interested, please provide your contact details and area of interest to the Editor at editoradfjournal@internode.on.net

I should also mention that the foreshadowed plan to reinstate the printed version of the *Journal* has unfortunately taken longer than expected, with the launch of the new design deferred to 2017. In the meantime, I would encourage contributors to submit articles and reviews for our next issue to the Editor by late January. The guidelines are at <www.adfjournal.adc.edu.au>

Finally, I would like to express my thanks to Kathryn Hitchings for her much-appreciated work over the past several years, both as Board member and Defence's manager for administration of the *Journal*.

I hope you enjoy this edition.

Ian Errington, AM, CSC
Principal
Centre for Defence and Strategic Studies
Chair of the Australian Defence Force Journal Board

FORTHCOMING SEMINARS AND CONFERENCES

28 November 2016

Strategic and Defence Studies Centre
Hedley Bull Centre, ANU
Iain Henry
'Reliability and interdependence in America's Asian alliance system'
5.30-7.00pm
<http://sdsc.bellschool.anu.edu.au/news-events/events/4667/reliability-and-interdependence-americas-asian-alliance-system>

29 November 2016

Lowy Institute
National Gallery of Victoria, 180 St Kilda Road
Dr Rodger Shanahan and Dr Lydia Khalil
'Foreign fighters in Syria and Iraq: the day after'
5.45-6.45pm
<https://myaccount.lowyinstitute.org/events/FOREIGN-FIGHTERS >

8 December 2016

Lowy Institute
National Press Club
Professor James Curran
'Fighting with America'
5.30-6.30pm
<https://myaccount.lowyinstitute.org/events/fighting-with-america?schedule=ac436642-74a1-e611-80f1-1458d05a586c&start=2016-12-08T07%3a00%3a00.0000000Z>

NOTE

To advertise forthcoming seminars and conferences in future issues of the *Journal*, please email details to the Editor
editoradfjournal@internode.on.net

Women, peace and security: the agenda is not women and it won't achieve peace or security

Captain Denna Fryer, Australian Army

> It has probably become more dangerous to be a woman than a soldier in armed conflict.
>
> Major General Patrick Cammaert, former UN Force Commander in the Congo[1]

This article argues that positive discrimination measures, as a by-product of the requirement for the ADF to fulfil its obligations to the 'Australian National Action Plan on Women, Peace and Security 2012-2018',[2] may do more harm than good in the pursuit of equality between men and women in the Services.

The reasons for this are threefold. First, at the most basic level, the language of the action plan lumps the three vastly-different concepts of women, peace and security together, diminishing the meaning and agency of each. Second, the action plan's agenda is more applicable to armed-conflict environments, where positive discrimination policies may be more effective, but is less useful when applied to the Australian domestic context where gender discrimination takes a vastly-different shape. Third, the agenda perpetuates an unconscious, unspoken bias that exists in the Australian context—similar to the 'tall poppy syndrome'—which undervalues the role of women in traditionally male roles. The article will conclude that while the National Action Plan may meet targets and achieve statistical success, it may not achieve its intended outcome of true equality.

An ADF example is significant to the discussion on related plans and policies because the ADF arguably has the greatest stake in the success of the action plan, as it is charged with the implementation of 17 of its 24 actions.[3] With the creation of an implementation plan for the 'Removal of Gender Restrictions from ADF Combat Roles',[4] and the establishment of a 'women, peace and security' adviser within selected ADF headquarters, the responsibilities placed on the ADF by the action plan have been taken seriously by the ADF's senior leadership, perhaps none more so than former Chief of Army Lieutenant General David Morrison.

As Chief of Army, General Morrison ordered members of the Army to respect women or 'get out', stated that armies that 'value the male over the female ... do nothing to distinguish the soldier from the brute', and sought to banish the 'unconscious bias'.[5] As such, this article analyses elements of the 'women, peace and security' agenda and where the ADF's approach may detract from the pursuit of true 'gender-mainstreaming', which is defined as 'ensuring that gender perspectives and attention to the goal of gender equality are central to all activities'.[6]

Background

> [UN Security Council Resolution 1325] stresses the importance of their equal participation and full involvement in all efforts for the maintenance and promotion of peace and security.
>
> Senator David Johnston, Minister for Defence[7]

The 'women, peace and security' agenda advanced by the UN Security Council, encompassing a number of resolutions, calls for the equal participation of women in creating and maintaining international peace and security.[8] More specifically, it provides guidance to stakeholders and requires signatories to the resolutions to incorporate a 'gender perspective' into planning for all aspects of armed conflict. This means 'addressing the needs of women and girls during and after

armed conflict', empowering and including women 'and their needs and perspectives in peace-building', as well as preventing and protecting women from conflict-based gender-related sexual violence.[9]

The resolutions are ground-breaking in international relations because they explicitly condemn the use of women's bodies as 'battlegrounds' or 'weapons' in armed conflict, and acknowledge the specific challenges women face in achieving equality in decision-making processes that surround armed conflicts. While it is undeniable that these two issues need the critical and immediate attention of governments worldwide, implementing them at the domestic level outside an armed-conflict environment may be counterproductive to achieving the long-held aspiration of equality—not equity—held by and for women and men alike.

The 'Australian National Action Plan on Women, Peace and Security 2012-2018' is a whole-of-government response to the international 'women, peace and security' agenda. In implementing the action plan, the implicit assumptions throughout the UN resolutions—designed for an armed-conflict context—do not directly translate to the Australian domestic context. This is because Australian society is obviously not an armed-conflict environment in which women routinely experience systematic gender-based violence and discrimination, or have little or no access to gender-specific hygiene and medical facilities. Nor are they often killed at birth because of their gender or considered not capable of representing their own interests in social decision-making processes.

Resolution 1325 arose from the need to protect and advocate for women exposed to these conditions, as well as provide frameworks for women's empowerment through what is commonly known as the mechanism of 'positive discrimination'. Gender-based violence and discrimination exists in Australia but not to the same degree as in countries ravaged by armed conflict. Accordingly, implementing the same positive discrimination policies in Australia may perpetuate the very social stereotypes they try to defeat.

This sentiment was revealed in the 2012 review into the *Treatment of Women in the Australian Defence Force*, commonly called the Broderick Review, which quoted a female ADF member's response to the review's recommendation that 'women may need different and specific supports' to men, asserting that:

> The biggest mistake, however, would be to give special treatment to women. This would reinforce the view that women are inferior and can only compete if given an advantage. It breeds division and is totally counter-productive to attempts to have women advance.[10]

Despite acknowledging that many women in the ADF share this view, the Broderick Review maintained that targets were required to overcome the failure of 'trickle up' strategies. Disagreeing that men and women in the ADF should be treated equally, the Broderick Review instead prescribed a policy of positive discrimination to drive cultural change in the ADF, emphasising the necessity of targets as a 'broader imperative for change'.

Discussion

Which one of these things is not like the other: women, peace or security?

At the most fundamental level, the three separate concepts of 'women', 'peace' and 'security' present a confusing and arbitrary representation of the UN resolutions. While 'peace' and 'security' naturally go together, with both used to describe a state of freedom from disturbance or threat, 'women' is the odd one out; moreover, lumping the concepts of women, peace and security together is problematic for two reasons.

First, it simplifies female adult human beings to a homogenous group and, in so doing, emphasises perceptions of women as caretakers and peace-bringers. Second, it disregards the role of women in creating and perpetuating violence and warfare, and neglects the importance of the role of men in 'peace and security'. These two points are pertinent for the ADF to consider in employing the National Action Plan's actions, because the agenda from which they are built may

implicitly endorse the wrong perceptions of women in the ADF, and undervalue the role of ADF men in peacekeeping and security operations.

The 'women, peace and security' agenda reinforces representations of women as especially vulnerable to violence. The preamble to Resolution 1325 states that 'women and children account for the vast majority of those adversely affected by armed conflict'—a sentiment that is reiterated by the call for 'special measures to protect women and girls from gender-based violence, particularly rape and other forms of sexual abuse, and all other forms of violence in situations of armed conflict'.[11] However, there are a number of problems with this representation of women, least of which is the fact that there is no empirical data to reflect the claim that women are more adversely affected by war than men, a point which will be discussed later in this article.[12]

The first problem is that the representation of women as 'women and girls' or 'women and children' reinforces stereotypes of women as 'weak, dependant, helpless beings'.[13] Laura Shepherd claims these representations fasten 'bodies in relation to a biologically determined narrative of sex difference that universally subordinates the female and requires that the female be weak'.[14] Similarly, Nadine Puechguirbal argues that this representation has produced a new type of human being—'women and children'—which is used so often and interchangeably to represent women. This sees children as an extension of a woman, perpetuating stereotypes of 'women as caring and nurturing mothers … unable to cross boundaries and move to the public arena where men are designing policies, taking decisions and running the world'.[15]

The use of the term 'women' throughout the UN resolutions fails to account for the cultural, social, religious, age or educational differences of female adult human beings. Likewise, use of the term 'women and girls/children' as analogous to 'women' strips women of their agency, negating their role as people responsible for their own lives separate from children and independent of men.[16] Defining women alongside girls or children limits women's ability to participate equally in society because they are defined as a grown-up girl or caretaker of children—let alone for their involvement in the restoration or rehabilitation of armed-conflict societies.

While the term 'gender' is also used, perhaps to overcome problems associated with using 'women' or 'women and girls/children', the agenda is targeted at women (and women and girls/children). As such, the use of 'gender' in the resolutions effectively comes to correlate with use of the word 'women'. The tendency to use the terms 'gender' and 'women' interchangeably causes confusion over whether the resolutions are targeted at protecting all genders equally or whether they are about protecting women (women/girls/children).

Furthermore, it solidifies the concept of gender and women as equivalent which, as Rita Santos and her colleagues argue, ignores the relational dimension of gender, being 'inter- and intra-masculinities and femininities'.[17] Laura Wilcox considered this to be the 'system of signification which creates social hierarchies based on associations with male and female traits'.[18] This confusion may have been overcome if discourses surrounding the UN resolutions had sought to protect all vulnerable non-combatants in conflict, men and boys included.

The problems associated with defining women as a category separate to 'women and girls/children' or 'gender' is compounded by the omission of men from Resolution 1325. While clearly peripheral to the 'women, peace and security' agenda, there is no concomitant 'men, peace and security' agenda. Perhaps this is because, as Puechguirbal argues, 'international relations had always been defined according to the masculine norm of reference … that [has] excluded women from power circles and decision making levels'.[19]

The implicit reason behind having discrete policies for women but none for men is, as Ann Tickner suggests, because 'men have been associated with defending the state and advancing its international interests as soldiers and diplomats, [while] women have typically been engaged in the ordering and comforting roles'.[20] If this is so, creating an agenda that once more separates women from men fuels the unconscious bias towards men as protectors, and women as the protected.

This is exemplified by Article 8 of the resolution, which states that all actors involved in peace negotiation and agreement processes are to adopt 'measures that support local women's peace initiatives and indigenous processes for conflict resolution, and that involve women in all of the implementation mechanisms of the peace agreements'. This solidifies the perception of women as victims who require the protection and support of men to bring about peace and security in an armed-conflict environment, a goal which could not be achieved without the caretaking, peace-building skills of women.

Second, the perception of women as caretakers and peace-builders is problematic not only because it is both inaccurate and unfair to men who undertake caretaking and pacifist roles but also because it misrepresents women's contribution to or perpetuation of violence. The emphasis on women's involvement in peacekeeping operations can be considered somewhat ironic in light of the criticism of peacekeeping operations as contributing to the continuation of patriarchal cultures and social hierarchies which, according to Louise Olsson and Torunn Tryggetad:

> In some cases involv[es] the exploitation of women and girls (as well as men and boys) in local communities, and the reproduction of spirals of violence resulting from difficulties in fulfilling expectations with regard to income generating mechanisms.[21]

Focusing on women's involvement in peace and security rather than their involvement in wider social decision-making structures—including government and defence—confuses the issues of women's equality and the need for peace in society. Emphasising the importance of the role of women in building a peaceful society overlooks the possibility that, in certain societies, peace may not be so peaceful for women.

Including women in the process to return to this 'peace' may not be as relevant as equal involvement in other arms of government that can ensure women have a chance at equality in a peacetime society.[22] In this sense, the emphasis on women in bringing peace and security to armed-conflict situations should be secondary to the emphasis on women and men having equal opportunities to play decisive roles in decision-making processes that affect their lives.

Taking the 'women, peace and security' agenda out of context

> Women and children account for the vast majority of those adversely affected by armed conflict, including as refugees and internally displaced persons, and increasingly are targeted by combatants and armed elements.
>
> Preamble to UN Security Council Resolution 1325

The second issue with the implementation of Resolution 1325, and much of the discourse surrounding the UN resolutions more generally, is that they target women in armed-conflict environments but are implemented universally and out of this context. Women have differing levels of access to opportunities to play decisive roles in an armed-conflict environment than in a non-armed conflict environment. In some socio-cultural contexts, such as in armed-conflict zones throughout Africa, South America and the Middle East, many women are oppressed and violated.

In other contexts, where there is no armed conflict, such as in Australia, women experience oppression and violence but not to the same degree. In a non-armed conflict environment such as in Australia, problems of sexism and discrimination permeate society but cannot be treated by the same formula as the problems experienced by women in armed-conflict societies. The agenda that targets issues of sexism and gender-based violence in an armed-conflict context should not be applied to a peacetime context; solutions in one environment may be inappropriate and harmful when applied to the other.

As outlined earlier, the preamble to Resolution 1325 states that 'the vast majority of those affected adversely by armed conflict' are women, who are 'increasingly targeted by combatants and armed elements'. This section outlines three reasons for this statement and similar statements that call for the protection of women's 'particular needs' and 'special forms of protection' found throughout the resolutions, to be regarded as counterproductive to achieving equality for women and men in a non-armed conflict environment, such as in Australia.

First, women in Australia are not exposed to the same type of discrimination, violence and oppression as women in armed-conflict zones. Second, these statements exclude women from consideration of their role in perpetrating violence or their role as combatants. Third, it denies men agency in creating peace, and fails to acknowledge the overwhelming loss of men's lives (combatants and non-combatants alike) in armed conflicts.

The application of the 'women, peace and security' agenda in a non-armed conflict context likens the treatment of women in armed conflicts to those outside these contexts. This is unhelpful to both situations. For example, in armed conflicts throughout the world, women's bodies are seen as another battleground on which to wage war and terror. Puechguirbal writes of war-torn Somalia, where:

> Two parties in conflict use a form of negotiation that is called the *dayeh* (blood money); the *dayeh* for a woman is half the *dayeh* for a man. However, if a pregnant woman is killed, or if her fetus dies, then the *dayeh* for the fetus is equivalent to the *dayeh* of a male adult. In addition, we often talk of the involvement of Somali women in conflict resolution by stressing the fact that women are exchanged between enemy tribes as a way of sealing a peace accord.
>
> Once again, the woman is seen in her role of mother exclusively since this exchange will translate into a happy ending when she gives birth, as illustrated in the Somali saying *meel xinijir lagu bururiyay xab baa lagu bururiya* (a baby should be born in the spot where blood has been spilt). Here again, we see a pattern taking shape in many societies that define the woman as a minor who is dependent of [sic] the goodwill of her clan, family, husband or father and cannot enjoy an autonomous life.[23]

The view that women in armed-conflict zones are minors or dependants and are exposed to horrendous violence and discrimination is reiterated by Patricia Hynes, who argues that 'widows of war, women victims of landmines, and women refugees of war are particularly vulnerable to poverty, prostitution, the extortion of sex for food by post-war peacekeepers, and higher illness and death in the post-conflict period'.[24] In this context, it is understandable that Resolution 1325 calls for 'special measures to protect women and girls from gender-based violence, particularly rape and other forms of sexual abuse, and all other forms of violence in situations of armed conflict'.

In Australia, women are not 'particularly vulnerable' to poverty, prostitution or sexual extortion by peacekeepers. The Australian National Research Organisation for Women's Safety published statistics from a 2012 survey on rates of violence against men and women since the age of 15. The survey showed that while 20 per cent of women had experienced sexual violence (compared to 5 per cent of men), 50 per cent of men had experienced physical violence (compared to 33 per cent of women).[25] These statistics, in part, show the different characteristics of discrimination and violence in the Australian context, compared to an armed-conflict context.

This leads to the second point concerning the implementation of a National Action Plan based on the 'women, peace and security' agenda outside an armed-conflict context. The incorporation of the same problematic language from the UN resolutions neglects women's roles as combatants and perpetrators of violence, and perpetuates stereotypes that may be counterproductive in achieving women's equality in Australian society. This is apparent in the fact that three of the National Action Plan's five strategies arguably solidify the biases of the 'women, peace and security' agenda.

For example, Strategy 1 calls for the integration of 'a gender perspective into Australia's policies on peace and security' which, as discussed earlier in this article, fixes notions of women's perspectives as different to those of men. Strategy 2 requires the 'women, peace and security' agenda to be embedded 'in the Australian Government's approach to human resource management of Defence, Australian Federal Police and deployed personnel'. This is problematic because it seeks to embed an agenda targeted at an armed conflict into a domestic (and non-conflict) context. Finally, Strategy 3 requests support to 'civil society organisations to promote equality and increase women's participation in conflict prevention, peace-building, conflict resolution, and relief and recovery'. In doing so, it perpetuates the myth of women as inherently

peaceful beings by emphasising their role in peace-building and caretaking, and neglects the equal role women should play in all arenas in order to achieve true equality.

The third point is that the 'women, peace and security' agenda exists without a complementary men's version, which compounds what scholars such as Adam Jones have argued is a social taboo in contemporary discourse surrounding violence and discrimination towards men in armed conflict.[26] Jones claimed that gendercide—that is, gender-selective mass killing—which targets males has 'attracted virtually no attention at the level of scholarship or public policy', despite the fact that non-combatant men, particularly 'battle-age' men, are the 'most frequent targets of mass killing and genocidal slaughter, as well as a host of lesser atrocities and abuses'.

In claiming that women are the most adversely affected by armed conflict, it is as though the agenda disregards the long history of mass killings and atrocities inflicted on men in armed conflicts. As Errol Miller asserts, men have historically been selectively killed, castrated and enslaved on a greater and more brutal scale than women in armed conflict.[27]

Similar to the way in which women are stereotyped as peaceful and caretaking, men are likewise labelled as violent and combative. The use of terminology such as 'battle-age' essentially defines men's identity, depicting men as perpetrators of violence or even the legitimate targets of violence, while women are defined by their capacity to have violence inflicted upon them or as victims.[28] Perhaps this is partly the reason the much greater loss of men's life in armed conflict is not emphasised—being 'battle aged' they were 'asking for it' and therefore it is far more heinous when violence is inflicted on women, who are helpless victims.[29]

To overcome these harmful stereotypes, which are harmful to men and women's identities equally, and to ensure men and women are considered equally in their status as combatants or non-combatants, the 'women, peace and security' agenda should not overemphasise the adversity experienced by women. This would discontinue the perpetuation of myths of men as warriors, and women as victims because, as Jones has asserted:

> The most vulnerable and consistently targeted population group, through time and around the world today, is non-combatant men of a 'battle age', roughly 15 to 55 years old. They are nearly universally perceived as the group posing the greatest danger to the conquering force, and are the group most likely to have the repressive apparatus of the state directed against them.

The 'non-combatant' distinction is also vital. Unlike their armed brethren, these men have no means of defending themselves, and can be detained and exterminated by the thousands or millions. The gender of mass killing, moreover, likely extends beyond the age range specified. Elderly males are probably more prone than elderly women to be caught up in the 'maelstrom' of war, and modern warfare, with its relentless press-ganging and criminality, extends ever further down the age ladder in the hunt for child soldiers and street thugs—overwhelmingly boys.

Unconscious bias

This article has established a number of fundamental problems with the 'women, peace and security' agenda itself: it misrepresents women in the language used, is taken out of context and applied to non-armed conflict situations, and it neglects the severe and brutal impacts of armed conflict on men, particularly male non-combatants. This final section will argue that compounding the shortfalls of the agenda is the misunderstanding of the vulnerability of women in armed conflict, compared to peacetime.

Women are not necessarily more vulnerable during or after armed conflict. As Santos *et al* explain, 'they become more vulnerable because of pre-existing inequalities, originating from gender power hierarchies, which are also present in so-called peaceful societies'.[30] The unconscious bias within society to treat women as peaceful, caretaking victims of armed conflict is both the reason for and the bias of the agenda. It is this bias that perpetuates women's exclusion from powerful decision-making roles in peacetime contexts. One such role—that of a warrior or armed service member—will be analysed briefly in this last section in examining the problems associated with the implementation of the National Action Plan in the ADF.

The ADF has numerous obligations under the whole-of-government action plan, by and large because it is an organisation that deals directly with armed conflict. As such, a Defence Implementation Plan was developed to facilitate the implementation of the 17 actions and 11 measures for which Defence is responsible, specifically being tasked to:

> Provide greater emphasis and focus on gender mainstreaming activities ... to integrate gender perspective into armed forces, military operations and missions and planning processes and align with the intent of United Nations Security Council Resolution 1325 and related resolutions.[31]

This task is problematic because, in the language of the 'women, peace and security' agenda, gender in this instance is coterminous with women, reinforced by the requirement to align with the intent of Resolution 1325, and therefore perpetuates the separation of women's and men's tasks within the armed forces. The requirement to incorporate a 'gender perspective'—a woman's perspective—into armed forces, military operations and missions and planning processes perpetuates the categorisation of all women together (despite age, class, race, religion, culture or background) and therefore the stereotype of women having a perspective (being peaceful and caretaking beings).

This stereotype is perpetuated throughout almost all of the Defence Implementation Plan's materials. For example, the Australian Civil-Military Centre released a 'Women, Peace and Security Introductory Training Manual', aimed at helping 'to raise awareness about the importance of the women, peace and security agenda, [and] ensuring that women play a central role in all aspects of the peace and security processes'.[32] The fact that women should play a central role is not questioned, due to this unconscious bias, despite the fact that no mention is made of men playing an equal role—or women playing a role in the business of warfighting itself. Warfighting, it seems, is still a man's domain, while women are central to peace and security processes.

While most employment categories in the ADF were opened to women in 2013, current policy states that by early 2016, 'direct entry female recruits will be permitted to enlist in all Services', meaning that all employment categories would be open to women.[33] A related risk assessment was published in August 2013, titled 'Risk Log–Removal of Gender Restrictions on ADF Combat Role Employment Categories', which is a direct reflection of the unconscious bias against women as a homogenous group within both the ADF and the wider Australian society.[34]

In that assessment, the top three Defence risks were identified as damage to government reputation as a result of the decision to remove restrictions; damage to Defence's reputation; and negative community perception. Last on the list was the 'low take up of women in formerly restricted roles'—the least of Defence's concerns. The prioritisation of perception risks over injury risks reveals a reluctance to allow women to fill combat roles, which exists despite the express intent announced on numerous occasions by senior Defence leadership that women will only be accepted into these roles where they meet the same standards as their male counterparts.

Nowhere is the implicit exclusion of the role of women as warriors more evident than in the declaration by then Prime Minister Tony Abbott in 2015 that the 330 ADF personnel and 143 New Zealand Defence Force personnel deployed to support a two-year training mission in Iraq will be 'splendid sons of Anzacs'.[35] Language and discourse play a significant role in excluding those who are not of the dominant group within the ADF—the Anglo-Australian male. Elizabeth Thompson outlined this in her 2014 report, 'Towards inclusion: language use in the Department of Defence', in which she argued that:

> Formal, officially endorsed language plays a key role in perpetuating and maintaining social norms, particularly those of the dominant group within the Defence culture. Particular language choices that privilege some values and types of people over others conspire to build an exclusive identity for the organisation. That identity does not represent the community that Defence serves, which is far more diverse and inclusive. While Defence argues that the organisation is becoming more inclusive, the formal language of leadership appears to be

> maintaining and perpetuating the male Anglo-Australian status quo. Unless this is addressed, it will counter attempts at cultural change.[36]

The iconisation of certain types of people (hero worship) and the exclusion of those who are different (the unconscious bias of affinity) is potentially excused in the team-based work environment of the ADF because of the occupational need to build strong group bonds. These bonds are built through social interaction of a certain group standard, which Thompson argued can work to exclude those who do not meet the criteria set by the dominant group.

As Thompson's study showed, these normative language practices that value the Anglo-Australian male above all other groups are not just perpetrated by a few 'bad apples' but throughout the ranks including the ADF's senior leadership. This said, it seems counterintuitive that the solution is the creation of targets and other positive discrimination measures, as they can be seen as further fuelling social perceptions of women as victims who need assistance to succeed. Elizabeth Broderick, in the *Review on the Treatment of Women in the Australian Defence Force*, argued that targets are necessary, despite many women in the ADF believing they are harmful to their experience of equality, contending that:

> Obviously, identical treatment works if a level playing field exists. Where it does not, however, identical treatment can lead to greater inequality, especially where existing policies and practices are assumed to be neutral but, in fact, are grounded in a 'male norm'. In these areas, we have made recommendations, including the use of targets, to level the playing field.[37]

Conclusion

With only a 1 per cent increase in the recruitment of women into the ADF over the past decade, despite the targets already in place, it seems unlikely that further positive discrimination measures will do much more than boost statistics, far less create equality between men and women in the ADF.[38] Instead, the unconscious bias that thrives on positive discrimination measures, used to assist women over men, needs to be reconsidered.

'Women, peace and security' policies that 'ensure increased representation of women', 'appoint more women as special representatives', and 'provide to member states training guidelines and materials on the protection, rights and the particular needs of women' fuel this unconscious bias in contexts such as the ADF. Instead of focusing on what makes women different from their male counterparts, policies should focus on how individuals capable of meeting specific employment standards, regardless of gender, should be employed in those categories. Not only does this shift the focus of gender mainstreaming away from women, it relieves men of the burden as society's protectors—as 'the splendid sons of Anzacs'.

As described in this article, the role of language and context are critical to eliminating unconscious bias. The association of women with 'peace and security' fixes women's roles as peace-builders and caregivers, and perpetuates stereotypes of women as victims who need protection. This is problematic because of the inaccuracies associated with the vast generalisation of women as a homogeneous group, and the issue of excluding inter-gender and transgender people from this discussion.

Furthermore, by focusing on women as the agents of peace, particularly when peace does not necessarily mean equality, problems arise where women are excluded from peacetime decision-making mechanisms. This is particularly problematic in armed-conflict contexts, where claims that women are the most 'adversely affected by armed conflict' are factually inaccurate and perpetuate stereotypes of women as victims and men as warriors who should fight (and die) for their country or cause.

This leads to issues with applying the 'women, peace and security' agenda to the Australian context, and particularly to the ADF. In this context, it is not so much the overt violence and discrimination against women that hinders their equal treatment, as is the case in an armed-conflict context, but the unconscious bias against women and against diversity more generally. While overt violence, discrimination and bullying are widely understood as unacceptable in

today's ADF, it is the insidious and unconscious elements of discrimination—still widely accepted—that obstruct equality.

The 'women, peace and security' agenda is a product of this unconscious bias; as long as it is considered a hallmark for women's equality, it will continue to propagate the same messages and myths it is heralded as defeating. With this understanding, the ADF should focus its efforts on eliminating unconscious bias. The first step is rethinking the ADF's approach to an agenda that may not help women achieve equality, and cannot guarantee peace or security.

Captain Denna Fryer graduated from the Royal Military College, Duntroon in December 2010. She deployed to Afghanistan as a troop commander in 2013 and as a mentor in 2015. She completed a Masters of Philosophy through the University of NSW in 2015, researching issues of ethnic conflict. She is currently posted to the 1st Intelligence Battalion.

Notes

1 Quoted in UN Human Rights, 'Rape: weapon of war', *Office of the UN High Commissioner of Human Rights* [website], available at <http://www.ohchr.org/en/newsevents/pages/rapeweaponwar.aspx> accessed 23 September 2016.

2 Australian Government, 'Australian National Action Plan on Women, Peace and Security 2012-2018', *Department of Social Services* [website], available at <https://www.dss.gov.au/our-responsibilities/women/publications-articles/government-international/australian-national-action-plan-on-women-peace-and-security-2012-2018> accessed 26 September 2016.

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Creating strategic corporals? Preparing soldiers for future conflict

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Introduction

The wars and other armed conflicts over the past century—since the time of the 'Great War for Civilisation' (which has become known as the First World War)—have seen substantial changes in many key areas of military science and technique.[1] Wars of position have been replaced by battles of manoeuvre and, largely as a consequence, massed battles have been supplanted by the actions of small (or smaller) units; battlefields are now unlikely to be remote from larger towns and cities, and civilian casualties (sometimes deliberate, sometimes unintentional) continue to rise; technology has made weapons more lethal and more accurate, communications instantaneous, and killing often more remote and clinical.

By contrast, the fundamental causes of war, at least as Thucydides presented them 2500 years ago—fear, honour and interest—have not changed. Nor has the fact that taking lives and fighting for your life is traumatic for combatants themselves; and nor has the likelihood that we will continue to wage war against each other into the foreseeable future at almost any cost to our material, social and psychological wellbeing. The only limit we have so far recognised, with two terrible exceptions, is with the indiscriminate nature of, and potential for human extinction embodied in, nuclear weapons; and on this self-imposed limitation there is no absolute guarantee into the future.

In these changes over the past century, what has been asked of the soldiers—and sailors and aircrew—has also changed. In armed conflicts, we expect soldiers of all ranks to be able to operate more autonomously, to exercise considerable judgment in (and take responsibility for) their actions, to be technically proficient, and to understand the larger picture of which their efforts are merely a part. No longer are soldiers 'cannon fodder'. In front-line forces, there are fewer of them and their actions count more than in the past; they are highly trained and extensively equipped and supported; and the loss of their lives is felt—particularly in modern democracies—as a national and political tragedy.

This emphasis on individual soldiers, their physical safety in the field and their physical, emotional and psychological well-being after the conflict, is matched by the increasing surveillance over their actions, especially in the field, by the established media as well as by the electronic communications technologies that have expanded into almost every aspect of our lives in recent years. But soldiers are increasingly asked to do much more than fight in armed conflicts, especially over the last three or four decades. They act as peacekeepers, often in volatile situations. They act as emergency responders in natural disasters. And they act in constabulary roles in a variety of challenging areas, including drug and people smuggling.

Nations now look to their armed forces for professional, thoughtful and effectual but restrained behaviours that do credit to their flag. The devolution of considerable authority to soldiers at the point of action, the sometimes conflicting demands the mission makes of them, the provocations they often face, and the scrutiny that they are consistently under, all demand a degree of education and training of soldiers, and of a more general preparedness, that is the subject of this article.

Charles Krulak's notion of the 'strategic corporal' drew attention to a number of the challenges facing soldiers in recent conflicts.[2] These include the complexity of the modern battlefield and the range of tasks that need to be prioritised and addressed; the role of the more junior ranks in

making important decisions within their field of operation (whether by the incapacity of officers, the inability to receive communications, or an increasingly small-group approach to many operations); and the ever-present scrutiny of their actions and thus potentially mission-crippling nature of their errors being broadcast to the world. Yet the initiative, sense of responsibility and preparedness expected by Krulak of the corporal are best extended to all soldiers.

This article begins with some reflections about the future of conflict: the challenges, in other words, that soldiers will need to confront in the near- to medium-future. Krulak's notion of the 'three-block war' encapsulates some of these issues but my purpose here is to canvass the breadth of the matters of which soldiers should have some understanding. Arguing that technology will play an ever-larger role in future conflict, I stress that the challenges confronting human beings are not thereby diminished and, in some ways, demand even more attention.

The third substantive section outlines some of the ways in which an appropriate level of preparedness among soldiers can be developed. My central theme is that precisely because of the difficulties of predicting the future of conflict in any but a coarse-grained sense, preparing our soldiers for the unexpected challenges that will inevitably arise needs to be given as much attention as the acquisition of weapons platforms (over which nations agonise deeply and spend extravagantly).

The future of conflict

It seems to be a Danish proverb, sometimes attributed to the physicist Niels Bohr, that '[p]rediction is very difficult, especially if it's about the future'. But in writing of 'the future', I want to limit my horizon to the next 30 years. That, broadly speaking, is the career span of an officer cadet or midshipman entering the ADF today. If we look to the next 30 years, what can we expect with reasonable certainty?

To sharpen our focus further, think of the 30 years since 1984. It was not quite the year that George Orwell had predicted in his dystopian vision, though some of its themes rang true, especially about the corruption and control of language. And Orwell's warnings about pervasive surveillance of our everyday lives are increasingly and deeply worrisome.

In 1984, the Cold War was in full swing.[3] The first Macintosh personal computer came onto the market, changing the face of personal computing forever with its use of a graphic interface.[4] Three years later, China's 'reform and open' policy was launched by Deng Xiaoping, which has led to the spectacular economic and strategic rise of China. The Soviet Eastern bloc collapsed in 1989 and the Soviet Union itself followed in 1991. Al-Qaeda launched its boldest attack against the US in 2001, and US forces subsequently invaded Afghanistan and then—on the same anti-terrorist pretext—invaded Iraq in 2003 and overthrew the regime of Saddam Hussein.

This has opened an era of sectarian violence in the Middle East that threatens to last for generations. In the Arab world since 2010, a large number of previously-secure rulers have been unseated, and civil wars and other conflicts continue to destabilise the region. Though democracy was the great hope of this 'Arab Spring', the reality has proved more diverse and more troubling. So there have been enormous political changes, most of them unpredicted.

The Internet, an electronic networking system conceived in the early 1960s as a way to provide a robust, distributed communication system for US defence purposes, was increasingly deployed by academia in the 1980s, and began to be commercialised in the 1990s.[5] This technology has shaped modern communications, with the development of mobile telephony and so-called 'smart phones' becoming available from the mid-1990s, and exploding in 2007 with the release of the first iPhone.

So there have been enormous technological changes, particularly in communications. Weaponry has incorporated and sometimes led these changes, including the introduction of precision-guided weapons that first saw wide use in the Gulf War in 1990-91. The threat of nuclear weapons has receded from view but, at the same time, the lethality of conventional weapons has increased many-fold.

In international relations, we had hopes (and some misgivings) for a 'new world order'; for an 'end to history'; and for the triumph of democracy. In other words, we anticipated—for 'one brief, shining moment', to coin a musical phrase—a harmonious world. What we have seen since the late 1990s but especially since '9-11', instead is a world where democracy appears increasingly unattractive; where some unfree states, notably China, seem to have cracked the code of wealth-creation, creating an attractive model for developing states; and where the abolition of the distinction between Church and state, in a new Islamic caliphate, has become a cause to which thousands are prepared to take up arms, even and especially against their co-religionists. These models are now in active, and sometimes bloody, competition against each other.

The unsurprising lesson of such an overview of 30 years is that change will continue—and will continue to surprise us. And, independent of such changes, though often linked to them, we also know that conflict will continue. Conflict is an inescapable element of the human story. Many of our human institutions are creative responses to conflict, channeling competitive energies into politics, law, markets, diplomacy and so on. But force remains the ultimate arbiter of human disputes.

What sort of wars will we fight in the next 30 years? It has been observed that wars between states themselves have declined since the end of the Second World War, and that wars of a new type—wars within states, over issues of identity, fought in unconventional ways and with unconventional financing—will predominate. Mary Kaldor is rightly prominent among a number of analysts who have made such points, and I will not gainsay them.[6]

Yet we should not be complacent that interstate wars are now impossible, especially on the basis of our impressive material achievements. We certainly have a lot to lose. But European states at the height of their material and cultural civilisation went to a disastrous war in 1914, and large modern cities—Coventry, London, Tokyo, Dresden, not to mention Hiroshima and Nagasaki—have in subsequent wars been devastated by aerial bombing and associated firestorms. We should not limit our thinking, or our preparation, by denying some futures as 'unthinkable'.

If we ought to acknowledge that interstate wars are not impossible, we should also be alive to the changes and challenges in guerrilla warfare. Fighting insurgents in remote environments in Afghanistan and Iraq, as we have been doing for more than a decade, does not constitute the 'textbook'. David Kilcullen rightly reminds us that the key megatrends—rapid population growth, urbanisation, littoralisation and global networked connectivity—will confront us with diverse operating environments for which we need different types of capabilities and preparation. He summarises his point by anticipating an age of the 'urban guerrilla'.[7]

What we should acknowledge at the very least is that the conflict scenarios of the future are unpredictable within a wide arc, and will be complex.

Another point arises from the experience of the last 30 years (and of the history of conflict more generally) which is crucial but I think often overlooked or discounted in these sorts of discussions. Wars of all sorts are terrible but they are rarely decisive. They do not, on the whole, solve problems. As Thomas Hobbes put it in the 17th century, there is no better 'hope to mend an ill game, as by causing a new shuffle'.[8] We must know that even if we are obliged or choose to fight a war, the application of force is unlikely to solve the problems that led to it.

Indeed, open conflict merely indicates that one equilibrium has broken down. That equilibrium may have been precarious, or unjust, or in other ways undesirable but its destruction may unleash a Pandora's box of troubles, giving succour to the discontented, the opportunists and the spoilers. Wars do not promise ready or clean solutions. That is, in addition, because wars themselves often create new points of disagreement or injustice.

We need to have clear and realistic views about what wars can achieve when we embark upon them. In his 1827 letter to Major Carl von Roeder, where he famously pointed out that war 'is the continuation of politics by different means', Clausewitz went on to state the consequence of this view that 'there can be no question of a *purely military* evaluation of a great strategic issue, nor of a purely military scheme to solve it'.[9]

In irregular war—much more than in regular war (where battles tend to be decisive)—the political dimension is key. Lawrence Freedman noted that we should not be too despondent about our capacity to deal with irregular warfare as a military problem, contending that:

> The key point however is that the military strategy must be integrated with a political strategy. If the side we are supporting is weak it is probably because it lacks a strong political base and is prone to division…. The side with the strongest political foundations should prevail militarily.[10]

General Wesley K. Clark has argued that the US intervention into Iraq in 2003 was 'a perfect example of dominating an enemy force but failing to secure the victory'.[11] And especially if we *choose* to go to war, we must also be aware of the role of chance. Winston Churchill in 1930 advised that:

> [Any] statesman who yields to war fever must realize that once the signal is given, he is no longer the master of policy but the slave of unforeseeable and uncontrollable events. Antiquated War Offices, weak, incompetent or arrogant commanders, untrustworthy allies, hostile neutrals, malignant fortune, ugly surprises, awful miscalculations—all take their seat at the council board on the morrow of a declaration of war.[12]

So wars of the future will be—as they have been in the past—unpredictable, complex and inherently limited in their ability to provide solutions.

One further point I will hazard with a reasonable degree of confidence is that it is unlikely that in the next 30 years Australia will fight a war for its existence as a sovereign state. Therefore, the conflicts in which Australian soldiers will take part will be wars of choice, and will almost certainly be in coalition with our allies, and will be at some remove from our shores.

All these predictions have ramifications for equipment and capability but they do not change the human factors of dealing with the experience of battle. In some respects, they deepen the complications. The ADF will, consequently, continue to be a professional and not a conscript defence force. That means that we not only *need* to think but we can *act* to prepare ADF soldiers to the best of our ability.

Technology and organisation

Technology has become the handmaiden of the imagination. And we can expect continuing, significant and rapid technological change over the next 30 years. But how will it affect warfare? I begin my answer with a cautionary point. The impressive military technologies of today give the very misleading impression—to both politicians and citizens alike—that modern wars can be won by technology and no longer need involve large inputs of human power or loss of life. And the reliance on technology does not absolve the decision makers 'from hard questions of strategy and policy' (which Russell Weigley argued was a dangerous American tendency);[13] and nor should it lower the policy threshold of the use of force as a last resort.

This point having been made, let me cover some of the principal areas where our military technologies will further assist our ability to wage war. In no particular order of priority, we may expect:

- An increased ability to cut through the 'fog of war'—those issues of situational battlefield awareness that Clausewitz drew to our attention, and that Tolstoy communicated so well in the battle scenes of *War and Peace*;
- An increased ability to be more effectively and precisely lethal in the application of force;
- A better ability to do 'more with less'; in the face of increasing challenges to national budgets, to get more lethality, more mobility and more firepower from a smaller number of weapons platforms;
- An ability to be more nimble in both getting to the battlefield, moving around it, and extracting oneself and one's wounded comrades from it if necessary; and

- Finally, an ability to be better protected and better able to survive what previously would have been considered fatal wounds.

These 'clusters' of abilities will be variously addressed and implemented by new and developing technologies. All of them will continue to develop as they have developed across the history of organised warfare for centuries. What is different, perhaps, is the attention, seriousness and (consequently) funding they will receive, and the likely rapidity with which they will advance. The best technical and theoretical minds applied themselves to advances in warfare in the 20th century, in Bletchley Park, Los Alamos and elsewhere, and this will doubtless continue.

While this organised human activity is fascinating, I confess that I don't find the technologies all that interesting in themselves. Identifying problems and devising fixes are what humans have become extraordinarily good at over the past two or three hundred years. Max Weber called it *Zweckrationalität*—instrumental or goal-oriented rationality—and argued that it had become a dominant characteristic of modernity.[14]

Technology is not an unalloyed good; it has the potential for unintended consequences. The use of precision-guided weapons might degrade the barriers against using nuclear weapons, or enemies might use pernicious tactics to strike back (such as using human shields or the Iraqi burning of Kuwaiti oil fields in 1991). The technology that allows people to aim and fire weapons remotely can mean that killing is not felt to be 'real', diminishing restraints.

The increasing technological integration of civilian and military systems means that any 'cyber war' will likely impact citizens and civilian infrastructure (especially the increasingly ubiquitous machine-to-machine communications, or the so-called 'internet of things')[15], and not just military systems. (That, indeed, might be its very purpose.)

Technology may also lower the threshold of conflict, by one party considering that certain sorts of technological interference constitute 'aggression'. It also may lower restraints on the idea that force should be used only as a last resort. And when soldiers are provided with the 'larger picture' that the new IT allows, they are 'likely to second-guess decisions made at higher levels and (in richly-connected systems) have the information required to undertake initiatives their superiors may find inappropriate'.[16]

Soldiers, of course, will become much more adept at using the new technologies, just as children nowadays have an almost intuitive sense of how to use smart phones and computer tablets. But soldiers will still suffer fatigue and rely on judgments, good and bad. They will be courageous and afraid; they will be daring and timid; generous and mean-spirited; and I am certain they will continue to find the taking of others' lives repugnant, even if sometimes necessary. John Keegan has rightly stressed this human dimension:

> What battles have in common is human: the behaviour of men struggling to reconcile their instinct for self-preservation, their sense of honour and the achievement of some aim over which other men are ready to kill them. The study of battle is therefore always a study of fear and usually of courage; always of leadership, usually of obedience; always of compulsion, sometimes of insubordination; always of anxiety, sometimes of elation or catharsis; always of uncertainty and doubt, misinformation and misapprehension, usually also of faith and sometimes of vision; always of violence, sometimes also of cruelty, self-sacrifice, compassion; above all, it is always a study of solidarity and usually also of disintegration—for it is towards the disintegration of human groups that battle is directed.[17]

Soldiers need to be 'trained' for the use of technology but they need to be 'prepared' more broadly for fighting wars. The human factor is the most important factor in war: in starting wars; in fighting wars; and in ending wars and rebuilding. Intrinsic to this factor is the organisation of Defence itself, on which I shall dwell for a moment.

Modern warfare is essentially industrial and bureaucratic. Ironically, the ability to engage in conflict requires the highest levels of cooperation and organisation. If hierarchy and bureaucracy (in the neutral, Weberian sense) are the best ways of getting human beings organised to pursue certain tasks, it is not surprising that militaries should be their exemplars. But bureaucracies

have their drawbacks—and it is worth mentioning three in particular that can impact on our 'prepared' soldier's ability to function strategically in combat.

First, bureaucracies tend to be risk-averse and obsessed with control; they feel threatened by different and challenging ideas, by open debate, by the unexpected. I know, or know of, senior leaders who are not like this. But most of their subordinates either chafe at, or quietly endure, the confines within which they must work and think; and some—through a process of socialisation—no longer see the confines at all. The soldier or official who disrupts the bureaucratic logic of control may well find himself with a short career.

I have hitherto used the masculine gender, and it relates to my second point: that the Australian military and military bureaucracy is not a diverse culture. The ADF is largely white and male (that is, predominantly male and third-generation Australian). A recent report from within the organisation argued that 'the language practices of Defence are mechanisms that thwart diversity and greater social inclusion'.[18]

A more diverse workforce would better represent the Australian people that Defence serves, allowing varied perspectives and enhanced operational capability. And as a professional service, uniformed and civilian, Defence needs to be attractive as a place for people to work, and to stem the attrition of highly-trained people. Nick Jans has described the ADF as consisting of four 'tribes': Navy, Army, Air Force and Australian Public Service.[19] Part of the preparation of soldiers must be to understand better the members of those other tribes with whom they will almost inevitably work in the conflicts to come, and to understand the broader community from which they are drawn.

The third issue is the ceaseless bureaucratic activity of Defence: the stress on process rather than outcomes, the hamster-wheel of extraordinary exertion, even and especially in times of peace, inducing fatigue and straining commitment.

Therefore, when we try to imagine (and prepare for) future conflicts, we should think less of the development of incipient and even imagined technologies of killing—however ingenious, effectual and precise—and more of the qualities and attitudes that are required for the successful prosecution of a war and the ultimate resolution of the issues that led to it. For they are essential if conflict is not simply to smoulder and subsequently reignite: if the deck is not to be re-shuffled once again, to echo Hobbes. How do we develop such soldiers?

The prepared soldier

First of all, soldiers should know in general terms where they stand in the scheme of Defence, and where Defence stands in the scheme of government. They should know the risks and the limitations of war as a means of resolving conflict. They need to be convinced that the conflict in which they put their lives at risk, and will likely take the lives of others, has a sound cause and a strong likelihood of success, and is not merely the product of grandiose personal ambitions, rivalries fanned by unthinking jingoism or desperation.

Like every citizen, they should be able to discern whether a war involves decisive action, with clear exit points, and transparent goals related to vital interests. While they might be familiar with the geographical landscape on which they operate, they should also be aware of its cultural landscape; not just to honour in some sort of token way the cultural achievements of their enemies, or even to be aware of the taboos the breaking of which can damage their relations with the local people (especially important in a counter-insurgency conflict) but to understand the conflict from the side of the enemy, the better to judge their seriousness and motivations, and the depth of their hostility, and in the final analysis why the enemy is trying to kill them.

As I have argued elsewhere, the advanced study of history, of politics, of law, and of literature are essential to the modern soldier, and not just to the circle of officers, in developing the types of understanding I have just outlined.[20] The study of history is not about 'learning from the mistakes of the past'; rather, it allows us to see the vast range of human responses to particular situations, to consider possibilities and boundaries. Literature stimulates the soldier to imaginatively

construct the feel of the battlefield, and to understand how different—but at the same time how similar—he or she is to others, even across age, gender, ethnic, religious and cultural divides.

Politics and its sub-discipline, international relations, allow a soldier to understand the reasons for a conflict and the likelihood of a just settlement. And politics, furthermore, opens up the world of the underlying power structures of the societies in which it is operating, supplemented perhaps by social anthropology. Law reinforces the importance of sets of rules of behaviour not just in the societies in which a soldier might be operating but in the conduct of war itself. And the discipline of ethics also has something to contribute, for while technology sometimes gives a decisive edge in battle, the human control of technology requires ethical decision-making, and the ability to hold humans to account for their actions.[21]

I am not advocating the development of 'soldier-scholars', though there have always been some soldiers who value the cultivation of their broader intellect almost as much as their professional mastery. Rather, I am commending the ability to process the vast amounts of information with which we are confronted to create *knowledge*: ordered and connected information.

In his 19th century discussion on *The Idea of a University*, Cardinal Newman described the sort of intellect I think the soldier should have: 'one which takes a connected view of old and new, past and present, far and near, and which has an insight into the influence of all these one on another; without which there is no whole, and no centre'.[22] He called this a 'liberal education', by which he meant the development of *useful* and *relevant* knowledge but not directly *applied* knowledge (for which training was the appropriate avenue). The distinction between training and education is even more relevant today.

The challenges of future conflict, in so far as we can anticipate them, also and relatedly, mean that soldiers need to develop a leadership style that embraces and encourages colleagues and subordinates: a collective style that cares about and draws from the collective to make good decisions, and engages all its members. The ability to develop trust in collectives, teams, is vital to the development of this leadership style.

Leadership and hierarchy are not synonymous concepts: hierarchical authority does not necessarily equate with experience or good decisions. The ability of senior ranks to listen to their juniors is critical. Sociologically, this style emerges more readily from a democratic society, the removal of the aristocratic element from military leadership, and the modern emphasis on merit and knowledge. A genuine discussion over strategy and tactics between different ranks that was almost unthinkable in 19th-century Prussia, for example, is nowadays taken as granted. Hierarchy has become the last refuge of the intellectually insecure.

Because of the almost universal human injunctions against killing, and what Dave Grossman has described as the 'innate resistance to killing their fellow human beings',[23] there needs also to be an educated self-consciousness of how the act of killing will be handled mentally by those who do it, and a recognition that time for group de-compression at the end of a tour of duty, and frank and intelligent responses by society at large to widespread instances of Post Traumatic Stress Disorder from returned soldiers need to be developed.

The reality of being in a war zone one day and the safety of home in 24 or 48 hours is challenging for soldiers to process. And increasingly this aspect of what might be called 'post-modern conflict' and its dangers are being recognised. But soldiers must first know what to expect, much as Elisabeth Kübler-Ross analysed the five stages of grief when confronted by impending death.[24] I endorse Grossman's view that:

> [I]f society prepares a soldier to overcome his resistance to killing and places him in an environment in which he will kill, then that society has an obligation to deal forthrightly, intelligently, and morally with the result and its repercussions upon the soldier and the society.[25]

Conclusion

There have been many 'models' of soldiers in the past, from the patrician soldier of ancient Rome, personified by the statesman Cincinnatus, who reluctantly took up public office and returned to his farm once the task was done (and to whom George Washington was often compared)[26], to the solider as expendable 'pawn' or, in the 19th-century expression, 'canon-fodder'. But the sociology of armed forces has changed.

Our democratic sensibilities recommend a more cooperative hierarchy of abilities and talents, and the creation of the 'citizen-soldier'. Aristocratic hangovers lurk harmlessly in ceremonial uniforms and Mess rituals, which have a way of reinforcing the distinction between insider and outsider. The new technologies of war have empowered modern soldiers and reinforced meritocracy but underlined the importance of soldiers' ability to partake in cooperative leadership. Their education must develop the skills—and the *courage*—of independent judgment; their formal education must be the start of a process of lifelong learning.

Soldiers are not simply people who go onto the battlefield and fire their weapons, or whose chief virtue is 'obedience'. They are the spearhead of a vast organisational chain, the results of years of preparation, and they must be the very best we can manage. Their lives are better protected the better educated they are; the more informed about their mission and their enemy; the more they can participate in the leadership of their mission; and the more they can appreciate the strains of battle and how to cope with stress and death. Prepared soldiers are resilient.

The soldiers who put their lives at risk for their country today need a complex set of intellectual strengths and insights to take with them into battle along with their weapons. Where their enemies may be zealots in some religious or ideological cause, they need an appreciation that tolerance and diversity are worth fighting for. I grant that these *desiderata* represent a tall order but, without a liberal education, such an order has no chance of being filled.

One further, crucial point needs to be kept in mind. None of the emphasis in this essay on preparedness for responding to the intensified challenges of the modern battlefield reduces the importance of the overarching strategic decisions which put soldiers on that field in the first place. A prepared soldier cannot substitute for a poor strategy.

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Notes

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Australia and NATO after Afghanistan[1]

Lieutenant William Leben, Australian Army

Introduction

In February 2013, Australia and NATO signed the 'Individual Partnership and Cooperation Programme between Australia and NATO'.[2] Although the agreement followed an unprecedented level of Australian involvement in the NATO-led International Security Assistance Force (ISAF) in Afghanistan, this significant relationship has received little scrutiny. However, given the renewed emphasis on international engagement in the *Defence White Paper 2016*, [3] it would seem prudent to seek a nuanced understanding of Australia's relationship with NATO.

Foreign Minister Julie Bishop has characterised the relationship as a 'natural' one.[4] NATO policy makers have made similar characterisations, with some commentators calling for full Australian membership of NATO.[5] On the other hand, Stephan Frühling and Benjamin Schreer have challenged the 'natural' characterisation, while Hugh White has gone so far to suggest that:

> The speed-dating infatuation between Australia and NATO is just one more sign of ... our strategic distraction, in the face of the perplexing power politics of the Asian century.[6]

This article analyses the future of the relationship between Australia and NATO, exploring it in three sections: political engagement, risks and military consideration. It argues that for Australia, the partnership agreement represents a unique relationship, with attendant opportunities and risks. It contends that the relationship is valuable because it nests within the long-recognised value of international institutions for a middle power such as Australia.[7] It concludes that while Australia has little or no ability to impact the broad direction of NATO, its partner status provides specific leverage and access relevant to its own strategic priorities.

Political engagement

The agreement signed between Australia and NATO in February 2013 stipulates that:

> In pursuit of mutual benefit, Australia and NATO undertake this Partnership to: promote understanding through consultation; stabilise post-conflict situations; support reconstruction and facilitate humanitarian assistance and disaster relief; and, as appropriate, enhance interoperability, create opportunities for technological or scientific exchange and build capacity through personnel exchange, education and training.[8]

The trajectory signalled by the agreement was reinforced by the so-called 'enhanced opportunity partnership' announced at NATO's summit in Wales in September 2014, with the post-summit declaration noting that:

> [NATO] Defence Ministers also met with five partners [Australia, Finland, Georgia, Jordan and Sweden] that make particularly significant contributions to NATO operations to discuss further deepening dialogue and practical cooperation as part of the enhanced opportunities within the Partnership Interoperability Initiative.[9]

While the 'enhanced opportunities' were not further articulated, it is clear that this status was not offered to all partner countries (which include, for example, South Korea, Japan and New Zealand), including some who also worked within ISAF. This should be seen as a signal that the gains in interoperability and access developed during ISAF have been consolidated in Australia's case, and are indicative of genuine intent from both parties in strengthening cooperation.

Nevertheless, in an address to the North Atlantic Council in April 2015, Foreign Minister Bishop made clear Australia's interest in the relationship being a 'two-way street', contending that:

> An integral aspect of an Enhanced Partnership for Australia will be NATO's willingness to respond similarly to Australia requests, where it is in our shared interest.... This reciprocity has much to offer NATO in return—for instance, by improving member-states' understanding of the vital Indo-Pacific and East Asia region.[10]

The place of the Australia-NATO partnership agreement within broader Australian policy has also come under attack from some as a distraction from Australia's real priorities. White has also suggested that Australia-NATO cooperation represents 'the last dying embers of Europe's aspirations for global influence'.[11] White is no doubt correct in pointing out that Asian economic growth means that old centres of power are now in relative decline.[12] Such criticisms, however, should be moderated, and predictions of NATO's demise should be regarded sceptically.

While serious problems remain, for instance in a lack of burden-sharing in global missions, it is not easy to conclude that NATO is largely irrelevant, soon to pass or set to withdraw back to European boundaries, as some would argue.[13] Indeed, even if NATO's influence is in decline, Australia's engagement with it offers more benefits than costs.[14]

Similarly, there can be no dispute that Australia's strategic priorities reside primarily with her closest neighbours and within the Indo-Pacific region, as asserted in the most recent Defence White Paper.[15] This has been affirmed in various other forums. For example, the Secretary of the Department of Foreign Affairs and Trade has clearly identified Australia's relationships with the US, China, Japan, India and Indonesia as its strategic priorities.[16] More broadly, and over the past several years, policy initiatives from both major parties have signalled a consensus that Australia's strategic future lies in Asia, increasingly framed around the concept of the Indo-Pacific, with similar messages about regional priorities and the continuing primacy of the US alliance.[17]

However, this set of strategic priorities establishes Australia and NATO's partnership as unique, not necessarily as a distraction. Australia is clearly removed from the European partners that characterised NATO enlargement after the Cold War. The suggestions of a few commentators excepted, serious consideration has never been given to Australian membership of the alliance. With no consideration given by Australia to reciprocal commitment to matters of European defence, European security issues have, understandably, barely featured in discussion between Australia and NATO. Australia's gaze has been and continues to be on the global rather than European face of contemporary NATO, although the MH17 incident, to which this article will return shortly, demonstrated that Australia remains involved in European interests.

More importantly, while the language of the partnership—and the words of both Australian and NATO officials—purportedly situates Australia's relationship within NATO's framework of various partners around the globe, the factors shaping the relationship uniquely position Australia. Of the middle-power partners, Australia is the most geographically distant and enjoys a very strong relationship with the US. The few other partners with a shared history in ISAF, an Indo-Pacific perspective and a relationship with the US, are on different trajectories with NATO.

For example, working with NATO is of lower priority for South Korea than Australia, while New Zealand's future intentions are unclear. Japanese sensitivities on the use of their armed forces impede potential participation in NATO operations, despite Japanese enthusiasm for cooperation.[18] And unlike some other partners, for instance Mongolia, the Australia-NATO relationship is not characterised by a defence capacity-building focus.

In this light, the partnership is most importantly about positioning Australia within the international system. Australian involvement in events in Libya and the Ukraine has provided clear evidence that despite a broad policy priority for Australia in the Indo-Pacific, the rhetoric of global security in Australian defence and security planning will continue to be tested. While Australia did not contribute in military terms to NATO's Libya operation in 2011, Australia was one of the largest aid donors in support of that mission. That some may ascribe this wholly to Australia's involvement with the UN Security Council in this period merely demonstrates that Australian actions as a global security player are likely to continue to bring it into contact with NATO.[19]

More recently, Australia's response to Russia's actions in Ukraine occurred in large degree through its NATO connections. Australia's Foreign Affairs and Defence Ministers both attended high-level NATO meetings shortly following the downing of MH17 in July 2014. Australian Federal Police and military elements were involved in investigations on the ground following the disaster. As one interlocutor observed, both the actions and rhetoric of the Australian Government at the time were much more robust than expected. Most recently, NATO has taken a limited role in the ongoing crisis in Iraq, where Australia is also playing a role.

This kind of incidental occurrence, along with potential involvement in NATO-led or NATO-involved missions, seems to be indicative of future interactions. In the continuing context of unpredictable global security issues, the modest leverage provided to Australia by its relationship with NATO would seem to be both useful and important in maintaining Australia's role as a constructive middle power in international affairs.

While critics such as White underplay this perspective, practitioners emphasise the low relative cost of maintaining the relationship, catalysed by Afghanistan, with substantial benefits that nest within regional strategic priorities. For example, during his time as Ambassador to NATO, Duncan Lewis introduced the idea of the 'pilot light setting', with the relationship represented by the partnership at 'low burn' but ready to be 'turned up' if operational requirements demand it.[20] And even when the pilot light is turned down, valuable military exchanges, science and technology cooperation, and interoperability efforts continue with little visibility.

Moreover, while NATO has taken a limited interest in the Asia-Pacific, relevant Australian representatives remain acutely conscious that this region is the prime concern for the Australian government. Foreign Minister Bishop's remarks quoted above are the most notable public expression that the importance of Australia's regional concerns underwrite its ties with NATO. This does not suggest that Australia envisages an ISAF-type operation in the Indo-Pacific in coming years. Instead, it means the potential for modest contributions of single aircraft or specialist personnel to Australian-led regional efforts, as well as Australian involvement in NATO activities such as Indian Ocean anti-piracy activities.[21]

It also means advocating at the working level, on a day-to-day basis, why European players should take an interest in the economic hub that is the Indian Ocean, in the same way that Australia took an interest in Russian actions in Eastern Europe. The broad rhetoric of shared interests disguises more concrete strategic priorities served by the partnership. In the first instance, this strategic priority is cooperation in the Indo-Pacific. But additionally, as recent events have demonstrated, Australia will be likely to continue to be drawn into global crises, both because of a risk management security outlook and the US alliance. The need to influence decision making in whatever operations eventuate is concrete.

None of this cooperation undermines the primacy of the US alliance in Australian policy. Australia will continue to support American operations, as evidenced by its return to Iraq in 2014-15. But Libya has also demonstrated that American involvement is increasingly likely to be conducted in a so-called 'lead from behind' fashion. That is, while American power might be responsible for much of the policy and key capabilities at play, organisations such as NATO and other states (for example, Britain and France in Libya) will provide the visible 'lead' for the operation.[22]

As was pointed out by one senior officer interviewed, the cost of maintaining even a two-star officer and a 'splattering of staff' in Brussels is very small. With such a presence, Australia is more favourably positioned to foresee developments and shape responses to crises in the global commons that are likely, owing to both the US alliance and Australia's interest in a rules-based global order, to raise the prospect of some Australian response.

Further, and counter-intuitively, presence and engagement might actually allow Australia to avoid entanglement in some crises, rather than represent a distraction. Actually having personnel in Brussels, as well as embedded in NATO headquarters, to 'sense and feel' developing crises and the thinking of key players, is hard to quantify but important. These relationships allow access that would otherwise whither against NATO's structural tendency to work simply at the

deliberation of its 28 member states alone, noting that even after ISAF, access within NATO to certain levels of classification and discussion reportedly remains 'very difficult'. An additional benefit of this presence is that it opens other bilateral doors, with high-level multilateral meetings as well as a small permanent presence in the multilateral environment allowing bilateral contacts with constituent countries Australia would otherwise struggle to engage with.[23]

At the very least, it is important to remember that NATO remains the world's 'premier' military alliance. While NATO is unlikely to be a major player in Indo-Pacific crises, in an era in which 'self-reliance' is an increasingly outdated concept in Australian defence planning, maintaining a relationship with NATO (as well as, by extension, many NATO member countries) is a modest enabler that positions Australia more favourably to react to global crises.[24] Rather than as a temporary expedient, the Australia-NATO relationship can be seen as a broad-based adjunct to Australia's priority focus on the US alliance and the Indo-Pacific region. As articulated by a senior ADF officer interviewed for this article:

> It's really about having linkages and networks that provide opportunity. That's the main relationship benefit ... a set of multidimensional security collectives and arrangements, because the US' interests won't always align with ours.

Treading carefully: risks

The unique position represented by the partnership also entails political risks and potential downsides that deserve as much attention as the opportunities. Australia does not want to stumble its way into a diplomatic bind.

First, the priority for the Indo-Pacific that Australia must bring to its relationship with NATO in coming years, conversely reflects a potential blind spot. Australia must tread carefully: given the stated intent of the Foreign Minister, what kind of NATO involvement does Australia want in the Indo-Pacific? Australia must be careful what it becomes a broker for, and remain attentive to the mutual perceptions between Asia and Europe that cut across strategic interest calculations. Colonial memories continue to affect European-Asian political dynamics. For instance, in the examples analysed by Evi Fitriani:

> The memory of colonial history could not be detached by either the Asian or European participants.... [T]he Asians tended to perceive that the Europeans approached them usually for 'material' motives, while the Europeans behaved as if they need to teach Asia how the world works.[25]

Sebastian Bersick has examined similar issues of perception between Europe and Asia.[26] No-one is suggesting that NATO's interest in the Indo-Pacific in coming years will take the form of an 'ISAF in Asia'. Similarly, no-one is suggesting that NATO will have any relevance comparable to the US or China in carving out the emergent order in the Indo-Pacific. Nonetheless, given such delicate issues of mutual perception, Australia must be careful about the broker it becomes. This is especially true given that the NATO and European positions on already delicate regional issues involving the US and Australia, such as South China Sea territorial claims, are as yet unclear.[27]

Turning away from the Indo-Pacific, what has been completely absent from the discussion of the Australia-NATO relationship is Australia's position on European security issues and Russia. Official documentation has very much focused on shared interests in global security issues. This risks forgetting that for NATO, although the Cold War may be some years gone, the Russia of Putin in 2016 is the prime security concern.

Australia's unique position needs to grapple with the primacy of concern over Russian actions for many NATO members, despite its relative lack of importance for Australia, as a distant partner lacking collective defence obligations. The tone of former Prime Minister Abbott's remarks about 'shirt fronting' President Putin suggest that the current level of consideration given to Russian actions within Australian policy may be somewhat lean.[28] There are at least two aspects to this concern.

First, is Australia part of the problem? Australian strategic planners need to be attentive to NATO's post-Cold War expansion and the vocal warnings that a Russian security dilemma could result. While Australia's partnership with NATO does not add to any perceived or real territorial encirclement of Russia by NATO, Australian rhetoric has positioned it within the broader group of Western states—which are, in the main, US allies—seen as hostile by Putin's Russia.

Former Prime Minister Abbott's remarks and the Foreign Minister's condemnation of Russian actions are key examples in this regard. The symbol of the partnership between Australia and NATO reflects this alignment with European NATO, even though it in no way represents collective defence obligations. Australia's stance in this regard is not, of course, going to exert a decisive impact on the course of developments in Eastern Europe. Thoughtful Australian policymakers should nonetheless be conscious of this issue.

Secondly, what should Australia do if escalation occurs? Paul Dibb has argued that Australian policymakers currently regard Russian actions too dismissively.[29] This is not to say that Russia is as important for Australian policymakers as for their European counterparts. As Dibb has argued, however, Australia should give serious consideration to what its response should be if the security environment in Europe continues to deteriorate. While priority might remain with the 'defence of Australia' and regional security, Australian interest in a rules-based global order is genuine.

Additionally, any conventional military action by Russia in Eastern Europe, improbable but not fanciful, would raise the real prospect of an American military response.[30] In view of these commitments to both the global order and the US alliance, conflict in Europe could well raise the prospect of some Australian contribution, however small. Australian policymakers should thus think seriously about any Australian response to a potential escalation of conflict in Ukraine and Eastern Europe. This is another small area of confluence between Australia and NATO; not one that should consume Australian planners but one they should not dismiss entirely.

In the incremental development of the Australia-NATO relationship, catalysed by Afghanistan, Australian policymakers did not necessarily grapple with broader questions surrounding a relationship with NATO. With the partnership cementing the relationship into the future, Australian analysts should now turn more seriously to these questions.

Military considerations

The political considerations discussed above should have primacy in deliberations on the future of Australia-NATO ties. Military considerations, however, cannot be ignored. Interoperability is and has always been a key issue for both Australia and NATO within their separate domains, and they have cooperated incidentally in this regard in years past. As such, it is unsurprising that it has been touted as a benefit of cooperation.

What has changed for NATO is the development of interoperability with global rather than European allies, as it has begun to conduct out-of-area missions. As John Deni has argued, Afghanistan provided something of a large-scale, live interoperability workshop for the transatlantic allies.[31] Even with such a workshop, the difficulty NATO faced in maintaining a truly coherent approach has been documented extensively. Peter Jakobsen, for example, has argued that there were many conflicting understandings of counterinsurgency at play within the ISAF mission, under the rubric of NATO's 'comprehensive approach'.[32]

Additionally, some have suggested that NATO headquarters on operations are dynamic, while its functioning in Brussels can be somewhat Byzantine as different parties tug for influence.[33] There are thus a number of reasons why interoperability with NATO is attractive: retaining lessons hard won in Afghanistan, staying abreast of NATO's complexity at the military headquarters level, and simply obtaining broader interoperability for the ADF.

The military interoperability aspect of the relationship should, however, be kept in careful perspective. The prime interoperability concern for Australia has been and continues to lie with the US. While the prospect of seamless integration with potential partner militaries around the

world is an attractive one, hard choices have to be made: interoperability with one partner likely means incompatibility with some others.[34]

As such, the ADF is best off keeping its interoperability priority in alignment with prime Australian strategic priorities—the US and the region. Additionally, achieving a good level of interoperability with the US does represent a certain level of commonality with NATO, as many NATO partners also buy American capabilities, and this provides some mitigation against divergence from NATO standards.

This overlap is reinforced by Australia's participation in other interoperability agreements. The ABCA Armies program is a longstanding arrangement designed to allow the sharing of technical and operating information between the US, Australia, the UK, Canada, and most recently New Zealand.[35] There are also extant arrangements that facilitate the sharing of classified information among key Australian partners, most importantly the so-called 'five eyes' arrangement. Specific areas in which gains can be obtained, for instance in leveraging NATO's leadership in cyber security issues, should be the focus of tightly-limited interoperability efforts.[36]

In this light, and keeping military interoperability in line with broader strategic priorities for Australia, it is useful to recall one interviewed officer's contention that 'the question is really how Australia can best influence NATO'. The relationships established at the military level are a part of establishing and maintaining this influence in close complement to the political and diplomatic relationships already discussed.

The presence of Australians in Brussels and within operational headquarters as seen in Afghanistan provides the opportunity to build relationships with key allies and, thereby, the potential to generate significant influence with them.[37] Embedded roles in a multinational context also provide professional development opportunities in the planning and conduct of larger and more complex operations rarely available within the smaller ADF context. These roles are complemented by shorter-term exercises and training exchanges that continue periodically.

This area—defence diplomacy—complements the higher levels of political engagement that have punctuated Australia-NATO relations. Time and again, interviews conducted during this research demonstrated that during the tensest periods for Australia-NATO relations during Afghanistan, the defence diplomacy aspect of the relationship acted as a more stable mechanism than political engagement. The defence diplomacy level of engagement was also key in building the relationship from 2007-08 until the partnership agreement in 2013, and into the present.

This mirrors observations about the complementary value of defence diplomacy to traditional diplomacy made by others. In light of Nicholas Floyd's observation that the ADF's defence diplomacy contribution is all the more important against the Department of Foreign Affairs and Trade's often resource-strapped reality,[38] the small Australian presence in Brussels is good value given the 'sense and feel' functionality it provides to both NATO and multiple bilateral partners. Defence diplomacy, while based on the strategic interests of the partners in question, might eventually allow Australia to move beyond 'narrow *realpolitik* calculations to advance diplomacy and towards an emphasis on co-option and fostering reciprocal relationships, expectations and linkages between nations'.[39]

Conclusion

Rather than representing a distraction from Australian strategic priorities, as suggested by White, the Australia-NATO relationship is a sensible investment for Australia as a middle power: there is a future for the Australia-NATO partnership that reflects 'clearly formulated national interests'.[40] The relationship between Australia and NATO, even relative to other global partners to NATO, can be seen as a unique quantity: its prime benefit lies in how it improves Australian leverage through both multilateral and bilateral connections.

In this respect, the partnership is also a useful adjunct to the US alliance that will continue to hold primacy in Australian policy, and can be nested within, rather than outside of, Australia's strategic priority for the Indo-Pacific. The idea of the 'pilot light setting' is also useful because, as

one official observed, we need to be wary of any push for more deliverables as the relationship between Australia and NATO further develops. As the Afghanistan mission that catalysed the Australia-NATO relationship slowly draws down, the relationship should continue at 'low burn', with limited visibility but significant benefit.

Military considerations, such as interoperability, are themselves a matter of second-order importance. This analysis has, however, highlighted the blurring of the military and political. The mundane, day-to-day cooperation entailed in interoperability efforts, personnel exchanges and so on underwrites higher-level engagement. In the military space, defence diplomacy is the most significant aspect of Australia-NATO ties. Importantly, Australia needs to beware of the risks attendant in the partnership. Australia must be wary of becoming too embroiled in European security issues and concerns associated with NATO expansion; it must remain conscious of its position on global security issues; and it must be sensitive to the broker it becomes in the Indo-Pacific region.

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Notes

1 This article is based on a thesis completed by the author at the University of NSW in 2015. Some 25 interviews were conducted in Canberra and Brussels as part of this research, including with Australian and NATO uniformed and civilian defence personnel, as well as a small number of foreign affairs officials.

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10 Bishop, 'Address to the North Atlantic Council'. The 'two-way street' terminology has replaced 'reciprocity' since Bishop's address. It became apparent that the latter term was undesirable due to its Article 5 (collective self defence) implications for NATO allies.

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14 Rynning provides a summary of this school of thought: see Sten Rynning, *NATO in Afghanistan: The liberal disconnect*, Stanford University Press: Standford, 2012, pp. 12-4.

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17 Australian Government, *Australia in the Asian Century*: *White Paper 2012*, Commonwealth of Australia: Canberra, October 2012 available at <http://www.defence.gov.au/whitepaper/2013/docs/australia_in_the_asian_century_white_paper.pdf> accessed 6 July 2016; also Kevin Andrews, 'Address to the American Chamber of Commerce in Australia', *[Australian] Minister for Defence* [website], 27 August 2015, available at <http://www.minister.defence.gov.au/2015/08/27/minister-for-defence-address-to-the-american-chamber-of-commerce-in-australia-qt-hotel-canberra/> accessed 31 August 2015.

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The Seaworthiness Board: reflections

Rear Admiral Trevor Ruting, AM, CSC, Royal Australian Navy Reserve, and Commodore Lee Cordner, AM, Royal Australian Navy Reserve

The Defence Seaworthiness Board is a relatively-recent addition to Defence's arsenal of review options. It was initiated by the Chief of Navy in June 2009 to aid risk assurance and contribute to risk control for Defence maritime mission systems. The initial focus was on safety management accountabilities but this was later expanded to include operational effectiveness and environmental protection compliance.

Board members are appointed by and directly responsible to the Defence Seaworthiness Authority (the Chief of Navy). They are former full-time officers now serving in the Active Reserve, mainly at the two- and one-star rank. They work in tight teams comprising operational and technical members, with additional specialist members appointed where necessary, for example, for reviews of submarine, diving, and Army watercraft.

Over several years, we have sat on numerous Defence Seaworthiness Board reviews spanning the spectrum of ADF maritime capabilities, including Navy and Army forces, recently extending to maritime support infrastructure ashore. Our commitments have enabled us to become intimately involved in assisting the evolution and implementation of seaworthiness conceptually and practically, as well as developing the Defence Seaworthiness Board and its processes. These are our personal reflections.

We consider it an honour to have been invited to contribute in such a constructive way at this late stage of our professional careers. Serving for extended periods on Seaworthiness Boards has provided rare strategic perspectives of specific Defence capabilities and afforded privileged insights into the functioning of the Defence Seaworthiness management system. We have been able to step back from the day-to-day, all-consuming challenges of senior line management and responsibility, with the freedom to take a 'helicopter view' and a clear mandate to 'call it as we see it'. We have provided our observations and recommendations without fear or favour. The genuine independence of the Board has been central to its effectiveness.

Perhaps the most rewarding aspect of the role has been the opportunity to engage with Defence people across multiple agencies. While the challenges evolve and technology advances over time, the need for highly-capable and dedicated professionals, Service and civilian, remains undiminished. Defence and its supporting agencies continue to benefit from high-calibre, highly-qualified and well-motivated individuals who work very hard and want to make positive contributions to the ADF team effort.

Genesis of the Defence Seaworthiness Board

As Chief of Navy from 2008-11, Vice Admiral Crane determined that he needed additional risk controls over the significant safety hazards inherent in the operation of maritime mission systems. In mid-2009, he approved the implementation of two concept demonstrator Seaworthiness Boards, based on the extant Airworthiness Board concept, and appointed Rear Admiral Trevor Ruting and Commodore Keith Eames as the inaugural Board members to implement the concept.

Fortunately, Commodore Eames had considerable experience with the conduct of ADF Airworthiness Boards and the core principles of airworthiness management. His experience and knowledge directly facilitated the development of the inaugural Seaworthiness Requirement Set of questions used to probe safety management of the subject mission system/ship class. The

Seaworthiness Requirement Set was developed from first principles as there was no extant seaworthiness policy or guidelines.

Cognisant of the environmental and operational risks inherent in their operation, the two concept demonstrator Seaworthiness Boards were the Collins class submarines (2009) and ADF diving (2010). After review of the concept demonstrators by the Chief of Navy's Senior Advisory Committee, Chief of Navy approved the implementation of a continued program of seaworthiness reviews of these plus all other Navy operational mission systems/classes.

The standard list of Seaworthiness questions used for the concept demonstrator Seaworthiness Boards was expanded after promulgation of the review by Justice Charles Haddon-Cave of a UK RAF Nimrod crash that identified a long list of hazards potentially applicable to older RAN ships.[1] The system boundary for the mission system under review was also confirmed as including all class-specific training and related facilities, and all aspects of mission system safety in the intended operational environment.

Subsequent Seaworthiness Boards in 2010-11 included the LPA [amphibious transport ships], ANZAC frigates and Armidale class patrol boats, and the second review of Collins class submarines (including submarine escape and rescue). The significant findings of the LPA Seaworthiness Board (with 19 corrective action requirements identified) precipitated re-consideration of their operational service and the subsequent independent review of support ship maintenance management by Paul Rizzo in 2011.[2]

The outcomes of the Rizzo Review provided focus, impetus and, importantly, additional resources to assist in rapidly improving Navy seaworthiness. The genesis of the Navy's comprehensive approach to seaworthiness was significantly aided by the implementation of regular review by Seaworthiness Boards that subsequently morphed into the Defence Seaworthiness Board. Both were a clear demonstration of Navy proactively taking control of its own destiny.

Emphasising risk-based approaches

Risk consideration was essential to every written Seaworthiness question and response, and behind many questions asked on Board day. Board members drove risk considerations hard and with intent. Defining questions, often overtly and vigorously pursued, included:

- Were risks fully comprehended;
- Did people at all levels understand risk concepts—and the specific risks associated with their activities;
- How were risks being managed, were they at ALARP/SOFARP [as low as reasonably possible/so far as reasonably possible] and what did this mean in effect;
- Were risk treatment or mitigation processes and plans robust and likely to be effective;
- Were risks acknowledged and accepted by authorities at appropriate levels with appropriate authorisations and accountabilities;
- What were the impacts of aggregated and accumulated risks—were they understood and how were they being managed;
- How do technical, operational, safety, environmental and other risks interact; and
- How did specific local risks interface with systemic risks and engage with or affect enterprise risks?

Embracing risk management concepts and approaches—as outlined in AS/NZS ISO 31000:2009 'Risk management - principles and guidelines' and related documents—in every aspect of seaworthiness endeavour, has fundamentally revolutionised the way Navy does business.[3] Before the advent of a comprehensive and coordinated approach to seaworthiness, risk was being considered in some parts of the system—for example, engineering risks and safety risks—and

better in some communities than others: the naval aviation community was probably ahead of the rest, closely followed by our submariners. A positive sea change has been evident.

While still a work-in-progress, the overall approach to managing risks has improved greatly across the seaworthiness management system. Understanding risks has been synonymous with better understanding our business—what are the critical factors in delivering capability outcomes and how can they be managed? What are our key uncertainties and what can we do about them? The upside of understanding risks has been that it has assisted in revealing opportunities and encouraging innovation and proactive leadership rather than reactive crisis management.

A related area of seaworthiness response that has gradually improved over time has been the commander or manager's strategic assessment of a situation. Earlier responses to those types of questions from the Defence Seaworthiness Board were often sparse and unsatisfactory. Considerable improvement has been evident although this has been patchy. The quality of strategic assessments is a strong indicator of management effectiveness and performance of the seaworthiness system in specific circumstances. Key questions include: how thoroughly does senior management understand systemic uncertainties (that is, risks) and what strategies are in place to effectively manage them now, and will they likely be appropriately managed into the future?

Communication

One of the most positive outcomes of the Defence Seaworthiness Board process, clearly evident during successive reviews, has been greatly enhanced communication between the many agencies involved in delivering Defence maritime capabilities. During early Boards, poor communication, cooperation and coordination were often obvious. We chaired meetings where managers from different areas appeared to be meeting each other for the first time; or at least the first time that all the major participants in that mission system/class 'enterprise' had focused on the core issues in the same room.

There were many instances of misunderstanding and misperception between members of the same enterprise, and teamwork was demonstrably lacking. There was a great deal of frustration, waste of energy and resources, lack of focus, and lack of access to or understanding of others' perspectives, challenges and priorities. Poor communication posed a good deal of risk at operational and enterprise levels. The seaworthiness review process helped to engender a realisation that the overwhelming majority of people from all agencies are dedicated, working hard and want to do a good job.

Although perhaps not a core intent, the requirement to periodically appear before a Defence Seaworthiness Board has, of itself, acted as a considerable catalyst to improved communication. The reviews have helped expose many systemic gaps and dysfunctionalities where multiple agencies need to work more closely together: to understand and respect each other's contributions and challenges. Importantly, the review process has highlighted and heightened the need for agencies and people to engage frequently and effectively and work together toward common purposes.

Seaworthiness policy and scope

As indicated earlier, the implementation of seaworthiness reviews started as a risk control mechanism directly for the Chief of Navy but, initially, in a 'policy vacuum'. There was a significant policy lag as the 'running system' learned about and developed its understanding of and the parameters around implementing seaworthiness concepts. While drawing on airworthiness experiences provided a very useful start, they were not always directly transferable to maritime systems that presented unique complexities and operating environments. An evolutionary approach was necessary and entirely reasonable as Navy/ Defence were breaking new ground.

As is often the case when major change is rapidly introduced, defining the necessary policy guidance and repeatable processes will never happen quickly enough. A classic 'cart and horse' dilemma became apparent. The Seaworthiness Requirement Set, as a primary seaworthiness system review tool, was devised and amended by panel members based on the best advice available, in consultation with Defence senior leaders, and by applying a good deal of commonsense, experience and judgment. Proactive line managers, who understood the benefits of and were eager to embrace the seaworthiness approach, used standard Seaworthiness Board questions to guide organisational and process changes, in the absence of other guidance.

This circumstance has improved since the mid-2012 formal implementation of Navy's seaworthiness program that included post-Rizzo Review outcomes. The advent of strategic policy guidance on the Defence seaworthiness system in *Defence Instruction (General) ADMIN 10-10*, published in 2014, has meshed with operational policy and doctrine. Navy and Army Strategic Commands, Fleet Command, Army Forces Command, and Special Forces Command have developed guidance, including improved ongoing internal review and auditing mechanisms in the 'running system'. This has also helped support agencies to be better informed about the requirements and expectations of an effectively functioning seaworthiness management system. A largely consistent approach to seaworthiness is now evident, while the system and its related policies and processes continue to evolve with the benefit of experience.

A major aspect of the evolving concept of seaworthiness included broadening the definition of seaworthiness and therefore the scope of Defence Seaworthiness Board reviews to encompass operational effectiveness and environmental protection compliance, in addition to safety management. The inclusion of operational effectiveness, in particular, provided significant challenges for Defence Seaworthiness Board reviewers and respondents, as the intent and scope was initially unclear. However, the boundaries of Defence Seaworthiness Board review are now reasonably clear as operational level seaworthiness development and internal review processes mature in the 'running system'.

Carpe diem: seaworthiness in Fleet Command

The closer one gets to the waterfront, the greater the appreciation of the need for an effective seaworthiness system that will produce consistently high outcomes. However, there will always be some who resist change, even when the benefits are apparent. Initially, the significant workload required to respond to the demands of Defence Seaworthiness Board review—and implement comprehensive seaworthiness across the Fleet—was seen by some as an unwelcome burden. Strong, thoughtful and consistent leadership in Fleet has been necessary and clearly evident. Across Fleet Command, negative attitudes became the exception as the vast majority of senior and middle leaders and managers appeared to appreciate the multiple opportunities for improvement that seaworthiness approaches offered.

Overall, Fleet Command has been observed to take a proactive approach to seaworthiness, with Defence Seaworthiness Board reviews generally seen as a necessary intervention—even though significant time and resources accrue. Seaworthiness has been embraced within Fleet as it has across the Navy and Defence agencies that support the Fleet. Notable outcomes have included significant improvement in seaworthiness practices, especially assurance processes for post-refit preps/readiness for sea trials and return to unit readiness. Better understanding of core Navy business to essentially raise, train and sustain operational forces has resulted from improved communication and more effective application of resources. A key outcome is a Fleet that has a better foundation to acquit operational missions, including achieving warfighting readiness when necessary.

There have been numerous 'success' stories arising from the intensive scrutiny of Defence Seaworthiness Board review; one notable example being HMAS *Success*. The Board was helpful in identifying significant seaworthiness challenges that required attention and resulted in necessary resources being applied. Fleet Command devised a comprehensive process and action plan that would ensure that risks were appropriately managed to bring *Success* to an acceptable operational standard. After considerable effort and investment, HMAS *Success* was able to

effectively complete an operational deployment to the Middle East, and be awarded the Duke of Gloucester Cup for the most efficient ship in the Fleet.

Army embraces seaworthiness

As part of the ADF diving community, elements of Army and Special Forces have been involved since the early days of the Defence Seaworthiness Board. Extension to broader areas of Army to include Forces Command and Special Operations Command marine elements began with a successful trial demonstrator review of Army watercraft, mainly those supported from Ross Island Barracks, Townsville. Subsequently, the Defence Seaworthiness Authority and Army agreed the benefits of bringing Army watercraft into the seaworthiness fold. This was perceived by Defence Seaworthiness Board members as being particularly apposite during creation of the Amphibious Ready Element and associated aspects of ADF amphibious capability, operational and doctrinal development. A consistent approach to safety management, operational effectiveness and environmental protection in the shared maritime operational context made perfect sense.

Seaworthiness was enthusiastically and professionally embraced by Army, and opportunities for shared learnings between Navy and Army were presented that offered mutual benefits. Army Strategic Command produced timely, clear and effective guidance on seaworthiness management in the form of a Chief of Army Directive, which set the direction and tone.[4] Army rapidly developed processes and doctrine, and the eagerness of Army marine and combat engineers to apply seaworthiness concepts was particularly impressive. The operational environment and culture of Special Forces present some unique challenges to implementing seaworthiness to the watercraft they operate, which is being addressed by Army. Overall, the advent of seaworthiness can be seen as a positive influence on developing an enhanced, joint ADF approach in the maritime context.

Submarines and ADF diving

From the outset, it has been obvious that the submarine community had a particularly robust, though not exhaustive, safety hazard management system through its SUBSAFE program, and many good processes to support it. There remains much that major surface ship communities could learn from our aviation and submarine communities. However, various Defence Seaworthiness Board reviews have continued to identify a range of safety (for example, hyperbaric aspects of rescue systems), training and operational effectiveness 'opportunities for improvement'—a number of which have been enunciated and addressed through John Coles' sustainment reviews.

ADF diving presented much more of a challenge to the implementation of seaworthiness reviews, as it is not a mission system like an aircraft or ship and, in the case of Special Forces, is merely a means of covert transport. The standard Seaworthiness questions had to be adapted to reflect the quite different application but the core principles of seaworthiness remain unchanged and have assisted the RAN Diving Force to better define its various operational outcomes.

Extending seaworthiness review to shore infrastructure

The Defence Seaworthiness Authority decided to extend seaworthiness reviews to selected Navy shore infrastructure, consistent with the airworthiness approach, and a pilot demonstrator Defence Seaworthiness Board of the HMAS *Coonawarra* waterfront maritime support system was convened in February 2016. The review was confined to the ability of the shore system to support the seaworthiness of operational mission systems; in the *Coonawarra* case, this principally meant the Armidale class patrol boats. The standard Seaworthiness Requirement Set was largely applied although, as expected, it proved deficient in some respects for a shore-side review and will require amendment.

The review involved Defence agencies, primarily Estate and Infrastructure Group and Commander Shore in Fleet Command, along with a prime contractor that had hitherto little or no

involvement with the Defence Seaworthiness Board. Not surprisingly, similar communication problems were observed between Navy/Estate and Infrastructure Group/prime contractors to those between the various agencies involved in the early Navy and Army operational mission system boards. Many good people in all agencies, wanting to do a good job, were being frustrated by dysfunctional processes, lack of boundary clarity and poor communication.

While it remains to be seen, it is likely that the Defence Seaworthiness Board will again prove to be a catalyst for significant improvements to not only seaworthiness outcomes but also overall relationships and effective management. The inaugural, trial infrastructure Defence Seaworthiness Board identified numerous significant risks and, importantly, listened to concerns with a balanced and unbiased approach. Improved communication, understanding and respect between agencies for what they contribute, and associated teamwork should follow.

Seaworthiness and people

Much positive comment has already been made in these 'old sailors' reflections about the fine leadership, enthusiasm, commitment and teamwork displayed by many people within the seaworthiness management system. Seaworthiness must, of course, involve a 'whole of system approach' that includes materiel, technical and operational systems and, vitally, people. People are not only essential assets within the seaworthiness system but the 'oil and glue' that make the system work and hold it together.

Although these statements are self-evident, it has taken some time and effort to have people factors fully considered in Defence Seaworthiness Board reviews—but we are getting there. Like all aspects, there is room for improvement so that personnel factors can be effectively reviewed to ensure that processes are well aligned to and supportive of the requirements for high-performing seaworthiness outcomes.

Seaworthiness and Seaworthiness Boards – an impost?

During early Defence Seaworthiness Boards, the word 'impost' was heard muttered by some managers at all levels. Implementing seaworthiness processes and responding to the requirements of a Defence Seaworthiness Board review certainly introduce a great deal of work. Seaworthiness brought a change in focus, practice and repeatable processes, especially independent assurances that had deteriorated over time.

Among other important outcomes, such processes and evidence were essential in Defence's response to the new *Workplace Health and Safety Act*. Interestingly, the Submarine community has consistently identified the benefits of Defence Seaworthiness Board reviews despite the additional work. Early Defence Seaworthiness Boards identified a number of major systemic shortcomings in configuration management, certification, and technical integrity management that have subsequently helped inform the design of the new Defence Seaworthiness management system.

A widespread awakening has been evident: the realisation that seaworthiness should be a normal and regular way of doing business along with the need to develop systems and processes that deliver good seaworthiness outcomes as a matter of course. Once a mature and operationally effective seaworthiness management system is in place, with ongoing internal audit and review processes, responding to a Defence Seaworthiness Board review should not take a great deal of extra effort.

Most thinking people see the Defence Seaworthiness Board as a positive opportunity that can lead to solving problems and getting resources. The word 'impost' is now infrequently murmured—at least within earshot of Board members; thankfully, as we can be a sensitive lot!

Some overall perceptions to ponder

The commitment to achieving positive seaworthiness outcomes from Defence leaders has been impressive. That is not to understate the challenges inherent so far and to be faced in the future. One area of ongoing challenge is the systemic role dichotomy that two key leaders in the seaworthiness management system constantly face and must reconcile: the Chief of Navy as the Navy Capability Manager responsible for Navy's outcomes on the one hand, and the Defence Seaworthiness Authority, with his regulatory remit on the other; and Head Navy Engineering, with line responsibilities for seaworthiness support while also being the single Seaworthiness Regulator.

In the civilian world, the role of regulatory authority is usually performed by an independent agency, for example the Australian Maritime Safety Authority or Civil Aviation Safety Authority. There will inevitably be conflicts and contradictions that Chief of Navy and Head Navy Engineering will have to deal with in discharging these large responsibilities. The role of independent Defence Seaworthiness Boards, comprised of capable and experienced officers with a mandate to provide fearless and constructive recommendations, assumes heightened relevance and importance in this regulatory/management construct.

Our experience in interacting with senior Defence leaders has been, without exception, very good. Relationships have been respectful and supportive. We have served three Chiefs of Navy and all have been unequivocal in their commitment to seaworthiness and the role of the Defence Seaworthiness Board. They have also, with rare exceptions involving some necessary modification, accepted and directed implementation of the recommendations arising from Defence Seaworthiness Board reviews.

We believe that Navy and Army maritime capabilities are now in a much stronger position to acquit operating intent and meet operational commitments than prior to the implementation of the Defence Seaworthiness management system. There is a much better understanding by all involved in Defence maritime enterprises of risks, processes and resources required to deliver outcomes required by government and for the nation. The Defence Seaworthiness Board is being used effectively to inform improved outcomes: to force compliance when necessary, identify change that may be required, guide resource allocation and priorities, and above all enhance safety for Defence people and materiel.

Seaworthiness and the Defence Seaworthiness Board are proving to be effective mechanisms for enhancing our maritime capability outcomes; they represent exemplars of Navy (and Army) proactively taking control of its own destiny. There is an abiding need to guard against complacency and recidivism. The 'nay-sayers' need to be constantly challenged, the independence of Defence Seaworthiness Board reviews as high-level risk assurance must be maintained, and the necessary resources to conduct effective reviews need to be found.

If Defence Seaworthiness Boards decline in frequency and coverage or are drawn into the 'running system', there will be a gradual and inexorable atrophy back to the 'bad old days' as epitomised by the LPA debacle. As an aside, it is notable that Airworthiness Board processes appear to have become increasingly routinised and process oriented; the special and flexible role of Defence Seaworthiness Board review needs to be preserved.

We have both enjoyed worthwhile Defence Seaworthiness Board experiences and believe we have made useful contributions. Navy and Defence more broadly is in much better shape as a result of embracing seaworthiness. We are fortunate to have been allowed to contribute in this way at this stage of our careers and we hope that our reflections will be of interest and may even cause some others to reflect.

Rear Admiral Trevor Ruting, AM, CSC, RANR was a Technical Member of the Defence Seaworthiness Board and Panel Coordinator from its outset in June 2009. His almost 40-year permanent naval career as a naval architect and marine engineer culminated in four years as Head Maritime Systems in Defence Materiel Organization.

Commodore Lee Cordner, AM, RANR was an Operational Member of the Defence Seaworthiness Board from November 2010. His 33 years' permanent naval service included several sea commands. He was the founding CEO of Future Directions International and is an academic researcher focused on Indo-Pacific maritime security and strategic risk.

Notes

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The ADF and cyber warfare

Brigadier Marcus Thompson, AM, Australian Army

Introduction

The realisation of cyberspace as a warfighting domain generates a series of questions regarding the nature of war, the characteristics of war in cyberspace, and the role of cyber capabilities in any future conflict.

In his keynote address to the *Australian Defence Magazine's* 5th Annual Cyber Security Summit in June 2015, Major General Fergus McLachlan stated that 'the Australian Army subscribes to the Clausewitzian view that despite changes in the character of war, the nature of war remains largely unchanged'.[1] McLachlan further argued that:

> [W]ar is and will remain a fundamentally human endeavour, rather than a technical or engineering problem ... [and that it] is and will remain a context of wills in which rational actors seek to mitigate weakness and vulnerability while attempting to exploit either an opportunity or a weakness.[2]

In essence, McLachlan was arguing that there is nothing new in cyber warfare; rather, it involves the application of established military methods in a new warfighting domain. It is, therefore, important for the ADF to consider how to deal with the Clausewitzian characteristics of chance, uncertainty and friction in cyberspace and how cyberspace can be used to facilitate the application of violence to damage the will or change the behaviour of an adversary.

The ADF has joined its main coalition partners in recognising cyberspace as a warfighting domain alongside land, sea, air and space. For example, the Chief of the Army has characterised the Army's mission command system as his main modernisation effort, which involves shifting the Army's command and control system into cyberspace.[3]

The openness of contemporary information-sharing technologies has facilitated a massive transformation in the global security environment due to increased opportunities for malicious cyber activities that cross national boundaries. An increased dependence on cyber capabilities and the subsequent exposure to emerging cyber threats present a significant challenge to the ADF. Since cyberspace is now the primary domain for global communications and commerce, this challenge is likely to grow quickly and continually.

It is reasonable to argue that espionage, theft, deception and disruption are not new. However, the conduct of such activities in cyberspace has only been made possible by the relatively-recent proliferation of digital information-sharing technologies. Nevertheless, if the ADF is to fight and win in a hostile cyber environment, it must consider the types of cyber capabilities it needs—and how those capabilities might be developed and applied in order to achieve an advantage in the contemporary battlespace.

The aim of this article is to propose a broad framework for the development of cyber warfare capabilities for the ADF. It initially provides an interpretation of cyber warfare, based on the Clausewitzian view of war. It then describes the types of cyber capabilities required in a joint context, and why those capabilities are important. The article concludes with a description of how the ADF might seek to develop the required workforce to fight and win in cyberspace.

Recognising cyber warfare

A considerable amount of recent work on cyber warfare has emanated from Australia, the US and the UK, particular dealing with the complexities of defining cyber warfare, as well as presenting academic research agendas and operational definitions. Australian commentators identified in a comprehensive literature review include Peter Dortmans, Nitin Thakur and Anthony Ween of the Defence Science and Technology Group, who perceive cyberspace as an 'unconventional' domain for Australia, and see the nature of cyber warfare as 'nascent' for Australia.[4]

Michael Robinson, Kevin Jones and Helge Janicke, in their 2015 article 'Cyber warfare: issues and challenges', present an international review of contemporary thought on cyber warfare.[5] However, their paper does not provide a new definition of cyber warfare but rather presents various opinions on a range of relevant topics. The greatest problem the paper leaves is the confusion that is often present in media-focused and unclassified literature, where the realm of intelligence and cyber attack, involving both commercial espionage and possible attack on nation states, is not differentiated from the offensive or defensive uses of military cyber effects. Both are equally termed 'cyber warfare', which does not simplify the issue either academically or in practice.

As opposed to the perspective of Dortmans and his colleagues, contemporary military and political conflicts are likely to have a cyber dimension. The well-known cyber attack on Estonia in 2007 is arguably one of the most publicised hacking operations in recent computing history, demonstrating the effectiveness of propaganda and malicious attacks in the cyber domain. The cyber threat facing Australia is far-reaching, diverse and not widely recognised. However, the threat creates real challenges for government agencies, businesses, society and individuals, as well as for the military.

Cyber attacks can be conducted at a fraction of the cost and risk of other forms of attack, and with a high degree of anonymity due to the maze-like structure of the Internet. This creates a significant opportunity for a weaker party to generate a disproportionate effect against a stronger, conventional adversary. Other major powers have mature cyber warfare and cyber espionage capabilities at the strategic level, and their tactical and operational military cyber capabilities are beginning to be better documented.

Similarly, Western militaries have reasonably well-developed, albeit reactive, defensive capabilities but have been reluctant to declare or acknowledge the development of offensive cyber warfare capabilities. Australia's electronic warfare community continues to maintain traditional capabilities to intercept and maintain analogue push-to-talk voice communication, yet we now live and work in a world becoming increasingly dominated by Internet-protocol communications. This can only serve to increase the cyber threat to Australian public and private sector organisations and individuals.

Fortunately, the public discussion seems to be broadening. Michael Lehmann, in a recent article in this *Journal* titled 'The case for an offensive ADF cyber capability: beyond the Maginot mentality', notes an increase in public discourse among practitioners, academics and senior public policy figures alike.[6] However, much of the discussion lacks specificity in the development and practical application of cyber capabilities—or what a cyber war might look like.

In considering the character of cyber warfare, noted US authors Peter Singer and August Cole have produced a remarkably-believable suite of vignettes in their futuristic novel *Ghost Fleet.*[7] While the scenario includes close combat in the land, sea and air domains, the authors' descriptions of combat in cyber and outer space generate significant food for thought. However, while the actions in cyberspace in the book were critical to each adversary's success or failure, cyber capabilities were not individually decisive. The operational effectiveness of cyber effects was derived from their complete integration with operations in the environmental domains. Additionally, in the posited scenario, pre-emptory cyber activities were not recognised nor considered as acts of war.

One of the most coherent descriptions, outside the legal community, of an activity in cyberspace being considered an act of war also comes from Singer who, with his co-author Allan Friedman, argues in *Cybersecurity and Cyberwar* that any activity in cyberspace should be considered with regard to its effects.[8] They argue, for example, that if a cyber attack destroys a power station and, in the process causes massive damage and loss of life, it is analogous to a kinetic strike; moreover, such a kinetic strike delivered by missile, bomb or ground attack would unambiguously be considered an act of war.

As the hypothetical cyber attack on a power station generated a similar effect to a kinetic strike, it too can be considered an act of war. Conversely, stealing confidential information from the power station control network is not likely to be considered an act of war. Cyber war can, therefore, be recognised by modelling the effects of a cyber event, and comparing those effects to warfare in the land, sea, air or space domains.

The description by Singer and Friedman complements the argument by Greg Austin that 'there has to be a clear distinction made between "cyber security" on the one hand and … discussions of military and defence needs in cyber space'.[9] Further reinforcing the earlier argument that there is nothing new in cyber conflict, rather only old methods being applied in a new domain, Austin's point can be satisfied by drawing an analogy to national security, where the Australian Army's 'Fundamentals of Land Warfare' notes that actions occur and effects are generated across 'the modern spectrum of peace, crisis and war'.[10]

Yet most national security activities occur well short of war. So it would seem reasonable to argue that activities conducted in the cyber domain can only be considered to be 'cyber warfare' if the resultant effects are similar to acts of warfare in the physical domain.

The importance of cyber capabilities to the ADF

In his 2013 book, *Cyber War Will Not Take Place*, Thomas Rid has argued that, in isolation, effects generated in cyberspace are unlikely to be decisive.[11] Such arguments do not make cyber effects any less attractive to the ADF. In a similar manner to indirect fire effects, such as artillery and air-delivered munitions, cyber effects are highly likely to be key enablers to land combat.

However, as 'the networked battlefield represents our greatest asset but also our potential Achilles heel',[12] it is clear that any potential adversary will analyse the ADF's strengths and very quickly seek to understand and undermine any advantages. Just as with kinetic operations, where effective defence requires offensive action, so it is with cyber operations. It is, therefore, critical that the ADF considers the requirement to secure and actively defend itself in cyberspace.

To continue the comparison with indirect fire support, the ADF (and particularly the Australian Army) has well-practised tactics, techniques and procedures for defence from indirect fire effects. From a defensive land operations perspective, if an adversary has the ability to deliver indirect fire effects, everyone on the ground knows to spread out and quickly seek appropriate cover if an alert is sounded.

Similarly, proactive measures such as aggressively patrolling 'rocket boxes' and dominating terrain that could be used to launch an indirect fires attack are key elements of defensive measures. From an offensive perspective, every officer and non-commissioned officer in the Australian Army, regardless of Corps, has observed the effects of indirect fire during training and knows how to call for indirect fire support.

These procedures are analogous to the application of both passive and active cyber effects. Every member of the ADF should know how to defend themselves against a cyber attack—from not opening links in phishing emails, changing passwords regularly, to taking great care when using USB devices. Similarly, all leaders in the ADF should understand the effects available to support them in cyberspace, know how and when to integrate those effects into operational plans, know how and when to call for those effects, and understand the complexity and preparation required to generate cyber effects.

The indirect fire support comparison is particularly relevant given the references in the recently-published *Defence White Paper 2016* to defending systems from the threat of cyber attack, including systems used by Australia's deployed forces.[13] While the *Defence White Paper 2016* assigns overall lead for cyber operations to the Australian Signals Directorate, it is important to recognise that, like all highly-valuable capabilities, they can be in short supply, meaning there will inevitably be a limit to the capacity and reach of the Australian Signals Directorate.

Depending on the scale and nature of an Australian joint task force deployment, the Australian Signals Directorate may not be able to meet the full expectations of a deployed commander, especially in terms of integrating operational and tactical effects. Therefore, it is important that the ADF be able to generate both passive and active tactical cyber effects well forward, in support of the immediate priorities of the local commander. Passive effects would include informing the design and implementation of defensive security measures, detecting penetrations, containing adversary effects, and resolving security breaches.

Recognising that it is not good enough for a professional military force to be capable of only 'taking a punch', the ADF must also be capable of delivering active cyber effects, particularly to exploit opportunities as part of tactical action in support of local commanders. Such effects could include the design and delivery of malware, and extending the reach of the Australian Signals Directorate. However, the activity of ADF personnel in cyberspace will inevitably generate national sensitivity, and must occur only within a nationally-sanctioned legal and policy framework.

Lehmann argues that 'the legal, policy and conceptual issues around military cyber attacks should not prevent the ADF from immediately establishing a prototype offensive cyber unit'.[14] While this argument is strongly endorsed by the author, Lehmann's subsequent argument that such a unit should be established under the Vice Chief of the Defence Force to 'avoid parochial interests' seemingly fails to recognise that the Services remain the nursery of joint capability. Therefore, it is important for each of the Services to consider their respective requirements in both a single-Service and joint context.

Finding cyber warriors

To maximise operational effectiveness, the delivery of military effects in cyberspace must be fully integrated into joint plans and operations. Military effects will ideally be delivered by appropriately-trained and empowered military personnel. Given the specialist nature of cyber operations, personnel employed in such roles should be selected based on their attributes and aptitude, rather than their technical skills. While technically-qualified personnel will certainly have a critical role to play, intelligence and targeting functions are equally important to the successful execution of cyber operations. In an environment that is constantly changing, the required technical skills will require frequent refresh—and can be taught.

From an Australian Army perspective, passive and active cyber operations are not the sole domain of technically-qualified personnel from the Royal Australian Corps of Signals. While the required workforce is likely to be drawn from the Royal Australian Corps of Signals in the first instance, any member of the Australian Army with the attributes required to successfully execute cyber operations can be trained to be cyber warriors, regardless of their rank, trade, Corps or gender.

More broadly, and in order to find the right personnel to prosecute cyber warfare, the ADF may need to reconsider its recruiting model, physical entry standards, its pay structure, and traditional corps/speciality structures in order to open any cyber-related trades to both new and existing personnel with the appropriate attributes.

Conclusion

Despite the enduring nature of war, its essential character continues to evolve. Advances in technology and the pace of change of that technology will continue to increase, providing

opportunities for both the ADF and its adversaries, especially when it comes to influencing the perceptions of target populations. The complexity of modern systems and the quantity, accuracy and urgency of data bring a new level of complexity to the battlespace and a new range of challenges.

The seemingly-exponential proliferation and subsequent reliance on information-sharing technologies and tools will lead to an increasingly-congested, contested and accessible cyberspace. These circumstances will also enable more actors to access technologies that can potentially be used to attack the ADF's information-sharing systems.

Actual and potential malicious activity in cyberspace from various threat groups has forced the recognition of cyberspace as a warfighting domain. Professional military forces cannot always choose the terrain in which they fight. Nevertheless, they must understand, and be prepared to fight in, any terrain occupied by an adversary. It is, therefore, critical that the ADF develops the capabilities required to fight and win in cyberspace.

However, in order to do so, much work is required. Firstly, an appropriate policy and legal framework must be established for the development and application of ADF cyber capabilities. It is critical that Australian Defence policy maintains pace with technology to ensure that the ADF is empowered to meet any potential adversary in any warfighting domain. Given the emphasis in the *Defence White Paper 2016* on the development of cyber security capabilities, an additional layer of actionable policy is required to ensure appropriate implementation of the Government's intent at the operational and tactical levels.

Secondly, resources must be allocated for the education, training, and equipping of cyber warriors, including both individual and collective training, as well as simulation systems. Further, doctrine must be updated to recognise cyberspace as a warfighting domain, and to describe what that means for the ADF. Additionally, the ADF must revise traditional internal and external recruiting practices in order to staff this capability with the best available personnel. This will also require a clear understanding of the personal attributes that the ADF requires of its cyber warriors.

Cyberspace is a key element of the contemporary battlespace, whether Australia likes it or not. It is critical, therefore, that the ADF responds accordingly and develops the capabilities required to successfully prosecute the nation's wars in cyberspace.

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Notes

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Occupational and environmental health in the ADF

Commander Neil Westphalen, Royal Australian Navy Reserve

Introduction

ADF personnel are arguably exposed to the most diverse range of occupational and environmental hazards of any Australian workforce. Controlling these hazards is complicated not only by the number, size and complexity of ADF workplaces but also by its workforce demographics.

ADF workplace hazards significantly impact the physical and mental health of current and ex-serving personnel. High rates of preventable workplace illness and injury (in particular musculoskeletal injuries and mental health issues) indicate the need to improve the management of the occupational and environmental health hazards associated with all deployed and non-deployed ADF workplaces, with better emphasis on prevention rather than treatment.

It therefore seems reasonable that the ADF's health services should be premised on an occupational and environmental health paradigm. While the details of such a paradigm are beyond the scope of this article, it seems evident that, among other attributes, the resultant health care delivery model would include military and civilian occupational and environmental physicians. These would not only perform occupational and environmental health policy and related roles but also provide workforce rehabilitation and other clinical primary health care services, alongside general practitioners in both garrison and operational settings.

However, the current health capability gaps between the current ADF health service delivery model and one reflecting an occupational and environmental health paradigm suggest the need to reassess the fundamental inputs to capability for Joint Health Command and the Defence Work Health and Safety Branch. The reassessment should facilitate inputs to capability that reflect an occupational and environmental health paradigm, leading to a genuinely holistic and sustainable workforce-based ADF health service delivery model.

ADF workplaces

The ADF arguably has the most diverse range of workplaces in Australia. The allocation of its permanent and reserve personnel to the Services is shown at Table 1. When not deployed, they work in over 60 major bases and other facilities throughout Australia.

Table 1: ADF personnel allocation, 2014-15[1]

Service	**Permanent**	**Active Reserve**	**Allocation to** (or otherwise providing direct or indirect support)
Navy	13,921	4750	47 commissioned and three non-commissioned ships
Army	29,010	14,166	wide range of combat and other deployable land units
Air Force	13,991	4316	259 aircraft
Totals	**56,992**	**23,232**	**80,224**

While many occupational and environmental health hazards are not unique to the ADF, compared to other Australian workforces its personnel are arguably exposed to the most diverse range. Examples include:

- Biological hazards, such as vector-, food- and water-borne infectious diseases;
- Physical hazards, such as climate extremes (both heat and cold), noise and vibration, and ionising and non-ionising radiation;
- Chemical hazards, such as heavy metals, asbestos, fuel and diesel exhaust, in the form of dusts, mists, fumes and/or vapours;
- Psychosocial hazards, such as shiftwork, fatigue, social/family isolation, and (regrettably) various forms of unacceptable behaviour such as bullying/harassment; and
- Ergonomic hazards, such as manual handing.

A unique characteristic of the ADF workforce pertains to its potential exposure to hazards that are deliberately intended to cause harm. These include physical hazards from weapons such as small arms, grenades, mortar and artillery rounds, sea-, land- and air-launched missiles, sea and land mines, and torpedoes, all of which can cause death or injury secondary to penetrating wounds, blunt trauma, blast injuries and/or burns. Nuclear and other radiological weapons pose additional physical hazards, as do biological hazards from weaponised bacterial viruses and toxins, and chemical hazards from weaponised blistering, choking and nerve agents.[2]

All these ADF workplace hazards require or are amenable to being managed using an occupational and environmental health paradigm.[3]

The ADF workforce

The ADF has one of the largest workforces in Australia. In 2014-15, it had 56,922 permanent and 23,232 active reserve personnel (totalling 80,154), of whom 2241 were deployed.[4] These numbers do not include more than 20,000 inactive reserve personnel.[5] By comparison, the Australian Public Service in June 2013 comprised 152,230 permanent and 15,027 non-ongoing (contract) employees.[6] The three largest private employers in Australia in 2015 were Wesfarmers (205,000), Woolworths (202,000) and Rio Tinto (55,000).[7]

With 214 entry-level jobs alone across all three Services, the ADF also probably has one of the most complex workforces in Australia.[8] ADF entrants are also required to meet demanding entry medical standards, while career ADF members have to maintain rigorous retention medical standards.

The ADF workforce also has a number of demographic characteristics specific to its occupational and environmental health requirements. For example, all serving ADF members are over 17 years of age and virtually all are under 65, whereas only 53 per cent of Australia's civilian population falls within these age parameters.[9] Furthermore, unlike a number of other national military forces, the ADF's health services do not provide care for family members or veterans. The ADF population requiring health services is therefore exclusively a working-age population.

Along similar lines, around 30 per cent of permanent ADF members are under 25, which is more than double the percentage of the Australian population aged 15-25.[10] The relative youth of the ADF workforce has implications regarding their medical presentations, in particular those related to risk-taking behaviours (including alcohol and other drug use), workplace- and sports-related musculoskeletal injuries, and mental health issues.

Also, around 85 per cent of both permanent and reserve ADF members are male, compared to about 55 per cent of the Australian civilian workforce.[11] This also has implications regarding illnesses and injuries secondary to various risk-taking behaviours among male and female ADF personnel, as well as the requirement to provide workplace and other health care services for a small but very important proportion of pregnant women.

ADF personnel also have relatively-short periods of service (43 per cent of permanent ADF members had served less than five years in 2011),[12] implying high personnel turnover rates. Studies have confirmed that higher numbers of less-experienced employees tend to increase workplace illness and injury rates.[13]

ADF personnel also typically have high geographic mobility. Using Navy as an example, two-thirds of its 14,000 or so permanent personnel are posted to shore establishments and other ADF organisations; the remaining one-third are posted to ships, one-third of which are at sea at any one time.[14] All its permanent personnel participate in a three-year posting cycle, which equates to some 4700 planned personnel movements alone every year. Besides creating a challenging continuity of health care setting, such mobility has important workplace health implications, particularly regarding the nature and extent of mental health issues among Navy personnel, and by extension the other Services.

The ADF population is therefore medically selected, of young working age, geographically mobile, has high turnover rates, and is (still) predominantly male. Rather than reflecting a typical civilian general practitioner dependency per the broader Australian community, the ADF is first and foremost a workforce population.

ADF veterans

In 2015, Australia had about 339,000 veterans, including 150,200 with peacetime-only service.[15] Of the total, 61.4 per cent were receiving health care services from the Department of Veterans' Affairs (DVA) for service-related conditions. In 2014-15, the cost of these services was $5.525 billion.[16] If the cost was borne (and funded) by Defence rather than DVA, it would constitute 15.9 per cent of a recalculated Defence budget, compared to around 9.5 per cent of GDP in health costs for the entire Australian population.[17]

A striking characteristic of ADF service, therefore, pertains to the high treatment cost of service-related medical conditions (even for personnel with peacetime-only service), despite high recruiting and retention health standards. Furthermore, 'Gulf War syndrome', depleted uranium exposure, mild traumatic brain injury, post-traumatic stress disorder, traumatic amputations and military suicide have dominated the attention of political and military leaders, veterans' groups and the media over the last 25 years in Australia and elsewhere.[18] Many of these injuries have become the 'signature wounds' of multiple conflicts in which Australia and its allies have participated in recent decades.[19]

However, these conditions have also diverted attention from lower profile yet often preventable diseases and non-battle injuries. For example, of the 62,087 US military medical evacuations from the Middle East area of operations in the ten years from October 2001, 81 per cent were not for 'signature wounds' but for diseases and non-battle injuries, about half of which were 'musculoskeletal injuries, mental disorders and ill-defined conditions'.[20]

Occupational and environmental physicians in Australia

In 2014, the Australian health care system had 98,807 medical practitioners in more than 80 specialties, including 32,050 general practitioners and 55,792 other specialists.[21] The Royal Australasian College of Physicians represented 19,210 Australian specialist and trainee specialist doctors from 33 specialties in various divisions, chapters and faculties.[22] Pertinently, the College's Australasian Faculty of Occupational and Environmental Medicine represented 492 physicians and trainees who:

> [P]rovide specialist knowledge to ensure a healthy, productive workforce and connect a workplace with the diverse range of health services necessary to optimise the health and wellbeing of employees. [Occupational and environmental physicians] work with governments, regulators, employers, workers and other health professionals to ensure positive health outcomes for workers and employers.[23]

Its website defines the terms 'occupational' and 'environmental' medicine as:

- 'Occupational medicine' takes a preventative approach to health and safety in the workplace by looking at how a work environment can affect a person's health, and how a person's health can affect their work.
- 'Environmental medicine' is primarily concerned with the human health impacts of industrial practices on the broader environment outside of the industrial site.

The Faculty has maintained an interest in the health care of current and ex-serving ADF members since its inception in 1982. This is demonstrated by the high proportion of its members with extensive military and other experience of working with the ADF and/or DVA. Indeed, two of its last five presidents have previous ADF service.

Occupational and environmental physicians are also specialists in setting the pace and direction of workplace-based rehabilitation, and negotiating with employers and other stakeholders to achieve optimal return-to-work outcomes.[24] Their skills and expertise are therefore highly relevant not only for current and ex-serving ADF members but also ADF supervisors, commanders and personnel managers, as well as DVA.

The current state of occupational and environmental health in the ADF

Although the Defence Work Health and Safety Branch and the Services have reasonably robust occupational and environmental safety organisations, their occupational and environmental health capabilities are quite limited. For example, as of August 2016, the ADF had only one uniformed occupational and environmental physician, the Defence Work Health and Safety Branch had one such civilian physician, and Joint Health Command had one vacant civilian position. Among other limitations, this precludes the ADF from effectively putting the 'health' into 'work health and safety'.

Moreover, the ADF appears unique in that, unlike other employers, its health services provide employee health care without ascertaining whether or not their clinical presentations are work-related. For example, Joint Health Command clinical records routinely document patient details such as their Service and rank but not their rate (Navy), corps (Army) or mustering (Air Force), which indicate the jobs they perform.

Furthermore, Joint Health Command does not collect or report work-related illness/injury data, or record lost time or restricted duties, or identify the ensuing health care costs (albeit some of this information is provided via a separate non-health reporting process managed by the Defence Work Health and Safety Branch). Yet this baseline health information is essential, not only for monitoring the effectiveness of the ADF's occupational and environmental health services but also accounting for the health care costs incurred by Joint Health Command, as well as the compensation and veteran health care costs incurred by DVA.

Moreover, Joint Health Command does not include occupational and environmental physicians as part of its multidisciplinary rehabilitation teams, despite anecdotal evidence that 30-40 per cent of clinical presentations to a typical ADF medical practitioner are for generally preventable musculoskeletal injuries. About half of these are workplace-related (typically related to manual handling or slips/trips/falls); the other half tend to be sports-related.

Also anecdotally, another 30-40 per cent of clinical presentations are for generally preventable mental health injuries. About half of these members lack psychological robustness for whom the ADF has been a poor career choice; the other half tend to be members who are psychologically robust but are not coping with excessively demanding or otherwise dysfunctional ADF workplaces or personnel management practices. This means that only the remaining 20-40 per cent of ADF clinical presentations are for conditions typically seen in an equivalent Australian civilian population.

These assertions are supported by data from the ADF's Health Surveillance System (EpiTrack), which showed that in 2007-08 and 2008-09, the five most common medical conditions in the ADF were injuries and musculoskeletal disorders, respiratory tract conditions, skin conditions, ill-defined conditions, and ear, nose and throat disorders, while the five most common ADF conditions resulting in sick leave were injuries and musculoskeletal disorders, respiratory tract conditions, mental health disorders, stress reactions, ill-defined conditions, and intestinal infectious disease.[25]

By comparison, the five most common Australian civilian clinical presentations in 2013 were hypertension, (childhood) immunisations, upper respiratory tract infections, (non-work-related) depression, and diabetes.[26] Consistent with the relationship between battle- and disease/non-battle injury casualty rates throughout military history, it is evident that the overwhelming majority of ADF clinical presentations are not combat-related.[27]

It is also the case that the non-deployed/garrison health services provided by Joint Health Command do not reflect an occupational and environmental health paradigm. Joint Health Command provides these health services in accordance with the extant Service Level Agreement between the Vice-Chief of the Defence Force and the single-Service Chiefs. Although the Defence Minister can vary the treatment services provided by Joint Health Command (in order to maintain fitness for duty while reflecting the facilities available), the agreements to date otherwise only mandate compliance with the *Health Insurance Act 1973* and the *National Health Act 1953*, which ensures that ADF personnel receive the same level of non-deployed health care as Australian civilians.[28]

However, although the current Service Level Agreements refer to occupational and environmental health services, none have so far required garrison health services to facilitate local unit compliance with the *Work Health and Safety Act 2011*. This limitation, combined with a lack of military occupational and environmental physicians, restricts garrison rehabilitation and other clinical services to that provided by general practitioners and other non-specialist practitioners.

The lack of occupational and environmental health support provided by Joint Health Command is not counterbalanced by that provided by the Defence Work Health and Safety Branch. The latter's focus on higher-profile workplace exposures such as asbestos, fuel, diesel exhaust fumes, surface finishes and fire-fighting foam does not address the lower profile yet far higher volume (and cost) of preventable workplace-related musculoskeletal and mental health injuries being treated by garrison health staff.

The need for a revised health delivery model

High workplace illness and injury rates suggest the need to better manage the occupational hazards associated with all ADF workplaces (whether deployed or non-deployed), in particular emphasising prevention rather than treatment. The earlier definition of occupational medicine indicates that this entails occupational and environmental physicians and other health practitioners who can specifically consider, in the first instance, 'how workplaces affect employee health'.

To this end, Derek Licina and colleagues have referred positively to a Joint Health Command concept paper, prepared for the Defence Work Health and Safety Committee, which outlined options to support Defence's 'Occupational Medicine/Occupational Hygiene Project'.[29] However, Licina *et al* also describe how some related capability shortfalls remain outstanding, despite these having been raised in 2009 by Comcare during its investigation into hazardous substances in ADF and Defence workplaces, while others were identified at the 2001 Board of Inquiry into chemical exposure by workers involved in the maintenance of F-111 fuel tanks.[30]

There is also the need for occupational and environmental physicians, and other health practitioners, to consider 'how employee health affects their ability to work'. For the ADF, this means ensuring that commanders, managers and supervisors are adequately informed of the health status of their personnel, in particular whether their medical condition(s) limits or

prevents them from working and, vice-versa—that is, whether their work makes their medical condition(s) worse.

The inappropriate employment of medically-unsuitable personnel poses a potential threat both to the individual and their unit's mission.[31] Evacuating personnel with known pre-existing conditions also wastes assets and poses operational hazards to other personnel. All clinical ADF health staff therefore must consider medical suitability for employment and deployment at all patient presentations. All actions arising should comply with the 'Temporarily Medically Unfit' process, the ADF Medical Employment Classification system and the relevant single-Service references.[32] Anecdotal evidence suggests this takes up to 30-40 per cent of an average military general practitioner's total workload.

However, garrison medical officers cannot assess medical suitability without fully understanding the jobs their patients perform in the ADF workplace. Acquiring this understanding typically takes 12 months; part-timers take longer, and sessional general practitioners are unable to acquire it without prior service experience.

This assertion is supported by studies indicating that medical fitness-for-work certification can be challenging for civilian general practitioners because of a combination of confidentiality issues inherent to the doctor-patient relationship; the general practitioner's patient advocacy role; consultation time pressures; a lack of occupational health expertise; and a lack of knowledge of the workplace.[33]

Other studies indicate that some civilian general practitioners do not accept their responsibilities as to how they should manage long-term work absence, work disability and unemployment.[34] Furthermore, balancing the needs of commanders against those of their patients can pose ethical dilemmas for health staff. Civilian health practitioners may also be required to default to the latter position by their professional registration authorities.[35]

In summary, although assessing health suitability for employment and deployment is clearly an occupational and environmental health function, it is not recognised as such with respect to the fundamental inputs to capability for either Joint Health Command's garrison health services, or for the Defence Work Health and Safety Branch.

Although the ADF's deployable environmental health services are reasonably robust, media articles indicate significant preventive management shortfalls for ADF environmental hazards in the base setting.[36] The Australasian Faculty of Occupational and Environmental Medicine's website indicates that in collaboration with other occupational and environmental health professionals, garrison occupational and environmental physicians can proactively help limit the health impacts of ADF industrial practices on nearby civilian communities and the broader environment.

Conclusion

ADF personnel are arguably exposed to the most diverse range of occupational and environmental hazards of any Australian workforce. Controlling these hazards is complicated by the number, size and complexity of the ADF's workplaces, and its workforce demographics.

Workplace hazards significantly affect the physical and mental health of ADF personnel. High rates of preventable workplace illness and injury suggest the need to better manage the occupational and environmental hazards associated with all deployed and non-deployed ADF workplaces, with increased emphasis on prevention rather than treatment.

It therefore seems reasonable that the ADF's health services should reflect a paradigm premised on the Australasian Faculty of Occupational and Environmental Medicine's definitions of occupational and environmental medicine. Among its other attributes, the resulting health care delivery model would include military and civilian occupational and environmental physicians, who not only can perform occupational and environmental health policy and other roles but also

provide workforce rehabilitation and other clinical primary health care services alongside general practitioners, in both the garrison and operational settings.

However, the current state of the ADF's occupational and environmental health services, and the small number of civilian specialist practitioners within the Australasian Faculty of Occupational and Environmental Medicine, suggests that a mature health delivery model would take 10-15 years' sustained effort with respect to occupational and environmental physicians alone.[37]

This suggests an urgent need to reassess the fundamental inputs to capability for Joint Health Command and the Defence Work Health and Safety Branch. The reassessment should facilitate inputs to capability that reflect an occupational and environmental health paradigm, leading to a genuinely holistic and sustainable workforce-based ADF health service delivery model by 2030.

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Disclaimer

The views expressed in this article are the author's, and do not necessarily reflect those of the RAN, the Australasian Faculty of Occupational and Environmental Medicine, or any of the other organisations mentioned.

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Gender integration into the combat arms: more unknowns than knowns for team cohesion

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Introduction

As most readers of this *Journal* would be aware, gender restrictions on the employment of women in the combat arms of the Australian Army have been removed, effective 1 January 2016 (Department of Defence, 2012a).

This historic change in longstanding practice has been preceded—and undoubtedly will continue to be accompanied—by vigorous, widespread debate about its advisability, both within the ADF (Carroll, 2014; Evans, 2013; Knight, 2013) and the wider Australian community (Mackenzie, 2015; Raphael, Neuhaus and Crompvoets, 2015).

The debate is not unlike debates around integration of other previously-excluded groups into the military (Kaplan and Rosenmann, 2012; Segal, Smith, Segal and Canuso, 2016). It also mirrors that in other nations (Deuster and Tepe, 2016; Haring, 2013; G.L.A. Harris, 2015; Morgenthaler, 2015; Ritchie and Naclerio, 2015). For example, in Canada as long ago as 1989, similar debates became the subject of a court case and a subsequent ruling removing gender restrictions in the Canadian Defence Force (Cawkill, Alison, Knight and Spear, 2009).

These debates have been characterised by a wide range of diverse and frequently-heartfelt opinions. However, from a scientific perspective, opinions of all stripes have rested largely on journalistic narratives and personal memoirs (G.L.A. Harris, 2015; Lemmon, 2015; Morgenthaler, 2015). Systematic evaluations of an objective type have been less common, partly because—to date—few women have actually joined the combat arms.

In order that the incorporation of women into the combat arms in Australia receives a systematic evaluation, the Army is conducting two longitudinal studies that will track both women and men from recruit training through their initial employment training into the regimental environment. One study, which is the focus of this article, is examining the cohesion of mixed-gender sections in comparison to all-male sections.

The other, which will be the subject of a separate report, concerns the adaptation of women to the physical demands of the combat arms. As it happens, a recent 'Women in Combat Symposium', conducted by the US Department of Defense, strongly recommended that such longitudinal studies be conducted (Tepe, Yarnell, Nindl, Van Arsdale and Deuster, 2016).

Scope

At the time this article was written, the systematic collection of data concerning the cohesion of mixed-gender and all-male sections had only commenced a few weeks earlier. Accordingly, this article will describe the background to the cohesion study in four subsections:

- A description of 'observed' versus 'felt' cohesion in teams;
- A summary of the available findings concerning the impact of women on cohesion in combat arms teams;

- A summary of international experience with mixed-gender combat teams, including the influence of leadership; and
- A brief description of the current cohesion study in the Australian Army.

Observed versus felt cohesiveness

Observed cohesiveness

Team cohesion has long been considered a vital component of military performance, alongside leadership, military skills, weapon systems, collective training and doctrine (for example, Griffith and Greenlees, 1993; Shils and Janowitz, 1948; Siebold, 2007). For primary military teams (notably sections and platoons), 'cohesion' is broadly the tendency for teams to stick together under pressure. Put in concrete, observable terms, a team demonstrates cohesion when its members execute their roles with sound coordination, cooperation and communication. Conversely, a loss of team cohesion may be observed when members perform their roles with poor coordination, cooperation and communication.

Team cohesion can, in principle, be measured by external, expert observer ratings of team performance during military training exercises, such as movement to contact, hasty attack, deliberate attack, ambush, defence and reconnaissance (Siebold and Lindsay, 1999). More systematic observation of a team's cohesion appears possible in circumstances that permit video recordings and subsequent image analysis (Mezzacappa *et al*., 2012). No studies could be found in which team cohesion has been explicitly rated by observers outside the team. However, as an approximation that presumably depends on a team's cohesion, overall team performance has frequently been rated by external observers, such as supervisory staff.

Felt cohesiveness

Although externally-rated team cohesion is uncommon, there are numerous studies that have asked team members to rate the bonds that they feel for one another, their leaders and their larger organisation (for example, Castano, Watts and Tekleab, 2013; Siebold and Lindsay, 1999). Recently, for example, US Army recruits—comprising 62 per cent men and 38 per cent women—were asked during their initial training to rate whether their platoon members were cooperative with each other, could depend on each other, and would stand up for each other (Williams *et al*., 2016).

These cohesiveness ratings increased as training progressed. In line with previous studies, higher cohesiveness ratings within a platoon were associated with greater self-rated resilience, greater confidence in managing stress, more positive states of mind and greater tolerance of training stressors, as well as less psychological distress and fewer sleep problems. In turn, these positive associations were predictive of the successful completion of training.

In many studies, cohesiveness ratings within a team are combined into a single measure. However, other researchers have contended that felt cohesiveness may be split into three components, namely social cohesiveness, task cohesiveness and organisational cohesiveness.

1) **Social cohesiveness** refers to the bonds of friendship and caring within a team. Many team-building activities in civilian life appear to be aimed at increasing the peer-to-peer, 'horizontal' bonds among team members and less often the 'vertical' bonds with immediate leaders. In the vertical case, the perception among team members that leaders care for their well-being and success is nevertheless thought to be particularly vital (Segal *et al.*, 2016).

2) **Task cohesiveness** is the confidence of team members that each within the team can be relied on in achieving an identified, collective goal (MacCoun, 1996). Furthermore, task cohesiveness can also be subdivided into 'horizontal' bonds of confidence among team members versus 'vertical' bonds of confidence regarding their immediate leaders (such as

section commanders, platoon sergeants and platoon commanders) (Harrell and Miller, 1997; Siebold, 2007).

In many circumstances, social and task cohesiveness may strongly overlap, and the ratings in many studies treat them together as a single construct. However, such an overlap may not always be necessary. There are anecdotal stories that even elite units may lack social cohesiveness to the point of physical brawls when off duty but still display high task cohesiveness and successful team performance when on missions. Conversely, units with high levels of social cohesiveness have more than once failed to conduct effective collective drills on the battlefield (King, 2006).

3) **Organisational cohesiveness** labels the vertical bonds of identification that soldiers have with their military organisation and its values. This component of cohesiveness has been associated with retention, positive conduct and positive attitudes toward military service (Siebold, 2007).

Across a wide variety of civilian and military teams, the self-rated cohesiveness of team members is a partial predictor of team performance ratings (Castano *et al*., 2013; Siebold, 2007). In particular, combined ratings of task and social cohesiveness moderately predict team performance when the team's task requires a high degree of 'interdependence'—meaning that considerable coordination, cooperation and communication among team members is necessary to complete the task, for example, battle drills (Carless and De Paola, 2000; Gully, Devine and Whitney, 2012). When the task interdependence is lower, cohesiveness ratings are only weakly related to team performance, for example, individual shooting (Gully *et al*., 2012).

The impact of women on cohesion in combat arms teams

Scientific studies of cohesion in mixed-gender combat teams are virtually non-existent. The closest—but not very close—approximation has been conducted by the US Marine Corps (Smith, 2015). In that study, mixed-gender infantry squads received a period of training and then underwent field trials to assess their physical and combat performance. The summary document stated that the self-rated cohesiveness of the squads 'averaged medium to good'. Specifically, 31 per cent of the males and 36 per cent of females reported their levels were 'very good'. Ratings of observed cohesion and/or combat performance were not available.

The next closest study tested the ability of cohesiveness ratings to predict performance among conscripts posted to an armoured brigade in the Finnish Army (Salo, 2006). The conscripts, including a few women recruits (34 of 2004), rated their teams on a combination of task and social cohesiveness in their horizontal, vertical and organisational dimensions. In all these dimensions, team performance as rated by the instructors was weakly to moderately correlated with the conscripts' ratings of cohesiveness.

Finally, outside the combat arms, the US Army has conducted repeated large-scale studies on the integration of women since the 1970s, finding that the integration of women into training for combat support and combat services support roles has had no discernible adverse effects on training outcomes down to squad levels. In fact, gender integration of up to 25 per cent of personnel in small teams reportedly improves the performance of women without detriment to the performance of men (Harris, Simutis and Gantz, 2002, p. 5).

In addition to the relationship of cohesiveness to team performance, other studies have investigated the relationship of cohesiveness and other self-ratings by the team members. Harrell and Miller (1997) surveyed a total of 934 US Army, Navy and Marine personnel regarding their team cohesiveness. Across all ranks, 30 per cent of respondents viewed their team as 'very cohesive', 51 per cent as 'loosely cohesive', and 20 per cent reported their team 'divided into conflicting groups'. These proportions were reportedly similar across men and women.

Unfortunately, for the purposes of quantitative analysis, the report's conclusions appear to have been based largely on a selection of quotes from focus groups. According to these selected quotes, gender as an issue for cohesiveness tends to be a secondary consequence of other

conflicts within a divided team. Gender differences alone did not appear to erode cohesion provided leaders emphasised unity among personnel, rather than, for example, displaying double standards and/or warning their male personnel to 'stay away from the women'.

In discussions concerning the loss of bonding rituals distinctive to all-male environments, even males who longed for the 'good old days' admitted that some types of male bonding were unprofessional and detracted from the work environment. Eliminating some purported bonding practices was viewed by the majority of male participants as raising the standards of discipline, conduct and professionalism for all concerned (Harrell and Miller, 1997).

Quantitative studies have also been conducted by the US Army in which samples were drawn from companies of combat services support units in both garrison and deployed settings in the period 1988-95, which included operational service in the Persian Gulf, Somalia and Haiti (Rosen, Bliese, Wright and Gifford, 1999). Across all samples, 16 per cent of the respondents were women.

These surveys concerned only horizontal social cohesiveness, focusing on off-duty interactions. This off-duty social cohesiveness varied depending on the setting and percentage of women in a company. In the Persian Gulf and Somalia settings, the mean rating of social cohesiveness for each company fell significantly as the percentage of woman increased. In garrison and during operations in Haiti, however, this relationship was far less apparent.

Rosen and her colleagues were cautious about reaching a definitive conclusion from their results that female integration into the US Army has a negative impact on military team cohesion, contrary to what has been inferred by others (Knight, 2013). They noted that their research captured 'a moment in time just prior to major historic events [Gulf War 1] that led to significant changes in the role of women in the military', specifically, the overseas deployment of 41,000 women for the first time in combat services support roles (G.L.A. Harris, 2015, p. 55).

Furthermore, we note that these studies, being restricted to off-duty cohesiveness, do not directly bear on team cohesion in the field. They did not assess either on-the-job task cohesiveness or observable team performance.

International experience with mixed-gender combat teams

Although integration of women into the combat arms is a recent initiative for the Australian Army, many other countries have employed women successfully in mixed gender combat teams, some for two decades or more (Cawkill *et al*., 2009). Although the numbers are very small, women have been consistently observed to contribute to cohesion and combat performance as much as the male members of their teams. Across all countries, there have been no reports of adverse effects from the integration of women in combat teams and employing them in actual combat, including close combat on occasion. Table 1 (overleaf) summarises the reported experience from a range of other nations.

Table 1. Gender integration of women into the combat arms of other nations

Canada (since 1989)	Women occupied 3.8% of combat arms occupations in 2006. Women have deployed to Afghanistan, where 2 of the 125 casualties have been women.
Denmark (since 1988)	As at 2009, 128 women have been employed in combat in Afghanistan.
Finland	Allows women to join the combat arms but no other information available.
France	As at 2006, 1.7% of combat infantry soldiers were women but no other information available.
Germany (since 2001)	Allows women to join the combat arms, and there have been no reports of problems as a result of female soldiers being involved in combat.
Israel	In 2006, 2.5% of women served in the combat arms but apparently not in close combat roles. However, their absorption into combat units has been observed to depend greatly on the commander's acceptance of women as equal to their male counterparts.
Netherlands	Allows women to join the combat arms but no other information available.
New Zealand (since 2001)	Employs women in close combat roles. As at May 2004, there were 9 female gunners, 3 riflemen and 1 field engineer serving in the NZ Defence Force.
Norway (since 1985)	Employs women in close combat roles. Women have participated in patrols in Afghanistan but, as far as known, have not been in actual combat.
Poland	Allows women to join the combat arms. As of 2008, an unspecified number of women have been deployed to Iraq and Afghanistan as platoon commanders.
Romania	Allows women to join the combat arms. Romania has sent women in close combat roles to Iraq (5.3% combat personnel) and Afghanistan (6.8%). No difficulties relating to women's employment in combat roles with respect to operational performance, team cohesion or successful achievement of missions.
Spain (since 1999)	Allows women to join the combat arms but no other information available.
Sweden (since 1999)	Allows women to join the combat arms and has deployed them to Afghanistan. They have been reported to have demonstrated positive operational effects. For example, through the contact between Swedish military females and local Afghan females, a number of improvised explosive devices and suicide bombers have been discovered and neutralised.

Source: (Cawkhill, 2008)

Leadership

Leadership is widely considered to be vital to developing the cohesiveness and ultimately the demonstrated cohesion of military teams (Adler, Castro and Britt, 2006; Bartone, Johnsen, Eid, Brun and Laberg, 2002; Siebold and Lindsay, 1999). In the context of gender integration, Segal *et al* (2016) have considered the profound influence that leaders have had in successfully

integrating previously-excluded groups, listing the following conditions that leaders at all levels can readily implement to facilitate team cohesion:

- Ensure that new members enjoy at least an equal status as current members, such as uniformly assigning duties to women and men in a unit;
- Ensure that new and existing members share common goals;
- Encourage new and existing members to have close, sustained opportunities to become familiar with each other on the job;
- Ensure, as far as practicable, there are a sufficient numbers of new members to prevent them from being seen as exceptions to stereotypes about the previously-excluded group;
- Provide visible, sustained support for integrating the previously-excluded group; and
- Conversely, discourage negative talk at all levels of command, even in private, that could perpetuate prejudicial and discriminatory behaviour.

The current study

The Australian Army's Small Group Cohesion Study aims to measure teams at the section and platoon levels throughout recruit training, initial trade/employment training and into their workplaces for up to five years. The study, which commenced in January 2016, is examining the cohesion of teams as assessed by instructor ratings for performance on tasks requiring differing degrees of interdependence. It will include personnel from the start of recruit training through corps-specific training and into their regimental environment for the combat arms but also combat support and combat service support roles.

At the same time, the felt cohesiveness of each team will be measured through surveys adapted from previous military research (Kanesarajah, Waller, Zheng and Dobson, 2016; Mael, 1989; Siebold and Kelly, 1988; Siebold and Lindsay, 1999; Treadwell, Lavertue, Kumar and Veeraraghavav, 2001; Williams *et al*., 2016). The desired end-state will be a series of scientific findings that meet the 'gold standard' of international, peer-reviewed publication so that further debate and policy development will be better informed.

Conclusion

As described in this article, little is known systematically, much less understood, about the relative effectiveness of mixed-gender teams on cohesion and performance. Undoubtedly, until mix-gendered teams actually engage in close combat, there will continue to be uncertainty about their performance, including—among other things—their cohesion in the face of the enemy.

That said, such uncertainties are hardly novel in the military. They have always been a source of considerable apprehension for leaders and soldiers in any team going into combat for the first time. The best available antidote to these pervasive uncertainties has always been rigorous, realistic training at the individual and collective levels, starting at recruit training.

Over the next five years, the Small Group Cohesion Study's systematic evaluation of this topical issue aims to further mitigate the uncertainties surrounding the incorporation of women into the combat arms, as experienced by the Australian Army.

Lieutenant Colonel Orme enlisted in the University of NSW Regiment in 1976. He was commissioned to the Royal Australian Infantry Corps in 1982, and transferred to the Australian Army Psychology Corps in 1988. He has deployed on operations to Bougainville, Timor L'Este, Solomon Islands, Middle East and Afghanistan. He completed a PhD in 2015 on the post-deployment adjustment of Australian Army reservists. In civilian life, he is an organisational and consulting psychologist in the corporate sector.

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Humility as a force enhancer: developing leaders and supporting personal resilience and recovery

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> Humility is the first step in the search for truth, in that it establishes the truth about ourselves. It is a wise and balanced self-knowledge that does not lead to narcissism or self-obsession but, crucially, to compassion.[1]

Introduction

This article advances the concept of humility, in the context of character, virtue and Defence values, as a key choice in support of resilience and understanding of personal reality and recovery. For both leaders and the injured, there is a need to be as fully informed as possible on reality and adverse contexts—however challenging—so that responses can be fully effective.[2] The article intentionally seeks to inform matters to do with leadership cultural change, retention and mental health resilience.

Humility can be considered a value-adding, self-assessment and choice-driven approach to reality and courses of action. As a conscious trait to inform oneself and act appropriately, it is remarkably related to the Defence Leadership Framework's expectation that development is based on an 'understanding of individual and team strengths, capabilities and weaknesses'.[3] Given its focus on moral character, humility also forms part of what Army so strongly espouses in its values, namely:

> The moral and physical courage to act in the best interests of the nation and the Army; including the moral strength and professionalism to balance the will to win with compassion, and mateship with duty.[4]

A common misunderstanding is that humility is about low self-worth or a sense of lowliness. However, in reality, humility can be about knowing one's reality in the context of professionalism and human development. It is a key character trait that enables emotional management and 'protection from excess', and acting well despite setback and failure. This is because it 'involves an accurate self-assessment, recognition of limitations, keeping accomplishments in perspective, and forgetting of the self'.[5]

A force has a fitness/readiness status. Yet there are also personal, more spiritually-oriented inner types of fitness which are alluded to in the concept of moral strength. These can include mental agility, an ability to honestly self-reflect and self-assess, and to recognise in non-judgmental ways the reality of circumstances, and to learn from failure.

The working hypothesis is that humility is an enabler of rigorous self-assessment for leadership and personal recovery. This means honest self-assessment and facing up to incompleteness and failure. For Defence, acceptance of reality—even when things are incomplete—can assist and augment the fully 'fit to act, to fight and to adapt' concept. On a personal level, accurate self-assessment and self-acceptance are crucial for healing and recovery of a suffering individual, and relate to seeking and maintaining treatment.[6]

In a Defence context of total force fitness, Mark Bates' model of recovery, reset and resilience (Figure 1 overleaf) is foundational in acknowledging times of injury, reset and total fitness. Note too, such fitness is not merely the absence of illness; rather, it is a continuum from 'not ready' to 'ready', whereby those who are injured or ill are treated respectfully and comprehensively in order to return to work or be reassigned or retired.[7]

Figure 1: A model of total force fitness [8]

Aim

The aim of this paper is to examine how humility can support resilience choices, cultural change recovery from illness and setbacks, and sensible reaction to unexpected (even traumatic) events and change. Humility is key because such actions relate to personal choices based on an appreciation of personal and group resources and, where necessary, an admission of incompleteness. This can lead to re-equipping, the allocation of additional resources or altering courses of action, as well as support for retention strategies.

Methodologically, the paper briefly distils selected scholarship on humility to produce a synthesis useful to support leadership and personal recovery and reset intents. To achieve this objective, self-awareness, self-care, understanding failure and non-judgmental self-acceptance and detachment will be considered, each of which relates to the notion of humility.

Definitions

In taking a self-reflecting, accepting and non-judgmental stance, this article adopts Mary Margaret Funk's definition of humility as 'standing in the truth of being'.[9] Funk speaks of humility as being a form of modesty and not a lack of confidence, although she does note its problematic modern reception by those who mistake it for weakness.

Humility also relates to acceptance of reality. Yet it is not about being humiliated and oppressed. This is about personal courage in values-based organisations. As Saint Teresa of Avila says, it is about 'walking in the truth of who we are … [and] accepting our weaknesses and our limitations, as well as our strengths and talents'.[10]

What humility is not

Humility, which since ancient times has been considered a primary virtue, could be defined as 'lowliness or submissiveness', since it is derived from the Latin *humilitas*, meaning 'from the earth'. In these terms, humility is often portrayed as making people feel inferior. The term humiliation is also unhelpful since it is not about a healthy self-knowledge or self-sufficiency, nor self-acceptance of incompleteness as the starting point to growth and healing.[11]

Key concepts

Humility is about sensible self-knowledge and recognition of human frailty. Such sound self-awareness and realistic thinking does not abolish true self-respect. It also reduces the chances of coming across as arrogant and helps maintain perspective. Humility is therefore an attribute of modest people who are able to admit mistakes. This is also helpful to teamwork, as such people are unlikely to take undue credit for another's work.[12]

Humility is beginning to have its presence felt in business. For example, a US study in 2014 found that humility 'empowered organizational climate, and [was] associated with work engagement, effective commitment, and job performance'.[13] It is also emerging in the military environment. For example, US Marine Corps General John Kelly contended in 2010 that the officer corps is made by the 'humility, honesty, moral courage, trust and allegiance manifested by honorable men and women'.[14] Kelly also speaks about humility in the command sense, linking it to the appropriate use of power, the environment and personnel retention.

In Australia, the RAN contextualises courage in terms of humility, asserting that 'courage drives responsibility, humility and personal example'.[15] Not dissimilarly, albeit in a religious context that could readily be adapted to the military, Joseph Tetlow contends that humility is about 'a strong sense of self and, the greater the humility, the stronger the sense of self'.[16] This calls leaders to a mindfulness of their own style and the effect of their actions.

Self-awareness/self-knowledge and self-acceptance

In commenting on performance and relationships, Michael Austin notes that:

> Empirical research on humility shows that this trait has great value. Humility has been linked with better academic performance, job performance, and excellence in leadership. Humble people have better social relationships, avoid deception in their social interactions, and they tend to be forgiving, grateful, and cooperative. A recent set of studies also shows that humility is a consistent predictor of generosity.[17]

Although it is receiving more attention in leadership research, surprisingly little psychological literature cites humility as a key trait and choice in relation to resilience and personal recovery.[18] Spiritual writers are more forthcoming. For example, Jonah Wharff highlights that 'humility enables us to be receivers of right desire and affect towards others, which has implications for collective as much the personal'.[19]

Similarly, Christopher Peterson and Martin Seligman see humility as a key virtue, and one which addresses excesses.[20] Everett Worthington contends that a realistic sense of oneself, combined with the realisation that one is not better than others, leads to forgiveness.[21] But what about its effect on compassion? In this light, Kristin Neff talks about forgiveness as 'forgiving one's failings and foibles and respecting oneself as fully human and, therefore, as a limited and imperfect being'.[22]

Saint Bernard taught that humility centred on self-knowledge is grounded in a truthful confrontation.[23] He also showed a raw and transformative honesty about self-scrutiny and its relationship to compassion when he stated that 'I am not ashamed to admit that in my early days I had coldness and hardness of heart'.[24] This stark self-recognition is a key response factor. Again, in terms of Bates' recovery-resilience fitness model, factual information about gaps and developmental or healing steps are key issues, especially if one is to overcome unhelpful rumination, speculation or misinformation.

The writings of Thomas Merton could be appropriated for the Defence environment. Merton offers some interdisciplinary and practical benefits of humility's focus on self-awareness and knowledge, asserting that:

> Humility is absolutely necessary if man [sic] is to avoid acting like a baby all his life. To grow up means, in fact, to become humble, to throw away the illusion that I am the centre of everything and that other people only exist to provide me with comfort and pleasure.[25]

Bernard Haring adds that decisions direct the way we live our lives, and these choices are either a firm commitment to the positive ethos of life towards love or they are not.[26] June Tangney also sees humility as a realistic choice related to self-assessment and recognition of failure as a catalyst for change, involving:

- An accurate assessment of one's abilities and achievements;

- An ability to acknowledge one's mistakes, imperfections, gaps in knowledge, and limitations;
- An openness to new ideas, contradictory information, and advice; and
- Keeping one's abilities and accomplishments—one's place in the world—in perspective.[27]

Such self assessment-based choices can augment strategies that seek to develop emotionally-reflective and change-oriented leaders. In the mental health and treatment and resilience areas, such research into humility and its relationship to imperfection and self-acceptance can support treatment plans and engender an environment where people can ask for help and support in order to restore capacities.

Consistent with Bates' recovery and fitness model, humility is a non-defensive willingness to see the self accurately including strengths and limitations. Honest self-assessment is important to holistic mental health care, especially where humility gives rise to compassion.[28] Again, identifying limitations and even failure requires knowing and accepting where things are. As Andre Delbelcq says:

> Humility begins with the daily willingness to accept criticism and be open to modification of one's own thinking as one's concepts are subject to examination in exchanges with others.[29]

However, over-thinking and disproportionate self-assessment can also be problematic when it becomes rumination.

Rumination

Rumination and excessive self-reflection can develop into defeatist thinking and exacerbate suffering. As noted by Susan Nolen-Hoeksema and colleagues:

> Rumination does not lead to active problem-solving to change circumstances surrounding these symptoms. Instead, people who are ruminating remain fixated on the problems and on their feelings about them without taking action.[30]

Studies have established that work-related rumination is a risk factor for poor recovery and ill-health.[31]

Detachment

Leaders enmeshed in high-tempo activity, as well as suffering individuals, may find it difficult to step back and reassess settings, reactions and choices.[32] 'Detachment', which is related to humility because it is about not being overly-enmeshed in either failure or success, can be viewed in both spiritual and positive psychology terms. Spiritually, attachment is a self-concept based on not identifying too closely with the ego, performance goals and so-called needs.

Psychological detachment comes close to this spiritual focus by focusing on 'holding one's painful thoughts and feelings in balanced awareness rather than over-identifying with them'.[33] Spiritual detachment or standing aside from the egocentric self is what Richard Rohr and Mary Beth Ingham call humility.[34] This may seem countercultural in a military setting but he is talking about unhealthy attachment to goals and performance. This has potential implications for character development because it is about self-reflection and not getting caught in rumination and remaining attached to problematic demands.

Developing practical applications

Humility can augment self-review, ultimately addressing unattainable performance desires, conflicting demands and the many difficult setbacks that will be experienced in every role in Defence. The focus on self-knowledge, detachment and acceptance of incompleteness and imperfection is useful for a chaplain supporting people to recover from adversity and failure, and

derive personal, inner meaning. It is also useful for a leader in basing honest assessment of reality as a key starting point.[35]

People who are self-evaluative are able to notice failure, review their plans and work, and be more receptive to constructive criticism. Those who are overconfident may only focus on positive feedback and ignore the negative. But to be the best in oneself, there is a need to learn to be one's own critic and take the advice of others. It is in this context that Basil Pennington not dissimilarly said that:

> Once we realize that we have bought into the construct of the *false self* and have come to identify ourselves foolishly with what we do, with what we have and what others think of us, we have made the first step towards freedom.[36]

Charles Dumont has argued that humility could be re-phrased as emotional honesty and self-truth.[37] The humility examined here is a positive value given best effect in adverse conditions. Being aware of and, therefore, being able to counter such unrealistic expectations and self-centredness can have significant implications for leaders and those who are in recovery, particularly for the leader, so that they do not over-react, and for the recovering, so that they do not get overwhelmed—which again speaks to the key theme of rumination and over-considering and dwelling too long on issues and emotions.

Humility and detachment assists personal reset and recovery choices

In a 2015 article in this *Journal*, it was argued that:

> People experience, feel and suffer at unexpected times and for unplanned reasons. At their core, when they are laid bare by trials and humbled by failure and life, inner joy and conviction seem far away. Clearly, early intervention is a key goal and it must not exclude any action that alleviates suffering, improves personal outcomes and builds personal capacity to function and hopefully return to full functioning.[38]

Humility is a personal trait and a choice that can underpin healing because honest self-assessment can lead to self-acceptance and seeking appropriate support. Pastorally speaking, this is the call to know and accept our incomplete selves as much as we are moved to know and accept others. In the words of Saint Thérèse of Lisieux:

> The value of our imperfections … provided we are reflective about and active in our lives, is that they help us to deepen in self-knowledge, and they impel us to change where change is needed.[39]

Such a trait could augment the way Defence's values are enacted, as it calls for personal and collective honesty. Rohr and Ingham too note that humility supports courage, resilience and recovery in the individual, although it is not often contained in treatment plans or assessment tools. Certainly, from the literature, humility is a choice to come to terms with failure and incompleteness by meaningful self-knowledge, which can aid in growth, change and recovery processes.

In high-tempo environments, where failure is not necessarily tolerated**,** humility has the potential to ensure an individual does not cling to a self-image that exacerbates resistance or suffering. This concept has been used therapeutically to assist in healing, albeit not without some controversy.[40] It is about 'learning to recognize [that] emotions can take hard work, [so] … reserve moments of reflection to ask yourself what you are really feeling in the moment and what you have been feeling recently'.[41]

Humility is having a clear, detached and realistic self-perception.[42] In terms of an ill or injured person, it is the supported and hopefully inner-awareness of reality and healing actions that assists in recovery and the return to wellbeing. Again, recalling Bates' recovery to fitness model, humility is a rigorous and honest self-assessment process, where the goal is to avoid maladaptive forms of self-reflection, enhance acceptance of reality, and come to recovery and growth. In other

words, in accepting that 'I know that I need support and treatment, I will take these recovery-oriented steps without question'.

All-in-all, the literature establishes the potential of humility as a personal resilience tool as much as it appears relevant to Bates' model. In the sense that it is as contradictory as it sounds, it means that the recovering soldier can come to know and accept their incomplete or failed selves as a platform on which to build their recovery responses. Practical steps include listening to one's emotive state, suspending judgment where possible, and building in reflective space in which to consider the options. It is also related to building self-acceptance capacity as the following vignette from a recovering veteran shows:

> Self-worth and self-acceptance follow each other: if you can't accept your situation you can go no further. I believe reflection and education are the key to let people know that PTSD [post-traumatic stress disorder] is real. It took me ages to face reality and get my self-worth and ride back. I enjoy volunteering and anything that I can do to help others. I lead a life that is worthwhile and fulfilling. Believe in yourself! Not easy but it can be done.

Assistance to personal recovery

In a way that could well apply to any pastoral carer tending to a suffering person and connecting it to compassion, humility need not suggest weakness or self-abnegation. Quite the contrary; humility requires toughness and emotional resilience; it can manifest as unflinching self-awareness, empathetic openness to others and a keen appreciation of, and gratitude for, the privilege of caring for sick persons.[43]

It follows, therefore, that in terms of first responses to a mental health or medical issue, whether it be injury, anxiety, mood or a disaffection issue, a key goal is urgent conveyance to medical and psychological assessment and treatment. However, from experience, we know that chaplaincy/pastoral responses can also assist a person to be self-aware in a non-judgmental sense of their condition and its treatment.

A practical example may assist. The author was speaking to a soldier who presented with concerning mental health symptoms, who was also being very hard on himself and his condition. To encourage the soldier to seek assistance, the chaplain maintained an accepting stance of the current reality and encouraged the person not to be harsh and self-judgmental. Assistance was not only framed in medical terms but also in terms of self-care and that we all at times need periods of reset and recovery. In these terms, the soldier acquiesced to obtain the requisite treatment.

Humility supports leader growth

Humility can also form part of command considerations because humility focuses on reality and an awareness of limitations. This relates strongly not only to understanding adverse circumstances and weaknesses but, as importantly, it means acting differently because of them. Humility guards against false perceptions, harsh self-criticism and self-aggrandisement. For commanders, this is about the type of review that notes and works through failure as an 'improve' idea, which helps build total force and an individual's fitness. The literature also links humility to generosity and one's disposition towards others, which points to collective effort and even altruism.[44]

Humility is a leader's choice to stand back and make sense of reality. It also enables the leader to see themself and the team effort in truthful relief. Such a deliberate choice for modelling rigorous self-assessment can also be modelled for a leader's relationship with their subordinates. This leads to actively seeking comments, even if they are critical; accepting when others have more information and skills; and admitting when they do not know something.

Some researchers call humility at work potentially useful and certainly counter-cultural to normal business imperatives, where self-promotion and self-aggrandisement are often the norm.[45] Yet, recalling Rohr and Ingham, humility is an inspirational and long-practised virtue. In

its practical operation, it guards against personal excesses and over-inflated ideas of what is possible—all of which are perennial and problematic issues in the workplace.

Some positive research is emerging that revisits humility and champions it by pointing to its efficacy. Organisationally, Donald Goergen sees humility as a noble trait oriented towards self-giving; yet he does not overlook the proper place of self-denial, which has potential corporate benefits.[46] This could be reframed as activities that see a leader placing their own needs aside in the service of overall, higher collective intent. It also relates to resilience and readying.

Detachment

The literature shows an emerging sense that physical detachment in itself may not be enough because negative emotions, workplace suffering and responses are often very subjective and deeply personal. Rumination is also deemed a key risk. An approach is needed that actively re-orientates rumination towards non-judgmental reflection, where detachment is about humbly looking at our needs, addictions and pain from slightly further away.

This recalls the 'stable witness' who notes the emotions and situation but does not get overly enmeshed in the pain or over-rumination.[47] In a Defence context, such endeavours have been under-examined because the suffering or disaffected self, let alone leaders, are not necessarily able to detach reflectively in times of failure, change, suffering or need. This research posits that such assessment provides scope for living with failure and ambiguity in order to create a platform for meaningful change.[48]

Rumination

Positive humility is arguably a protection factor against rumination and exaggeration (overstating a human experience or need, theme or condition). In character development terms— which arguably could be applied to the support and encouragement of those who are suffering illness—humility is advanced as not being for the faint-hearted, as it is described as 'a sign of great courage and deep spiritual understanding'.[49]

From the literature, humility is a key human orientation and choice, although it has been largely unexplored in military workplace settings. Humility seeks to address some of the often chronic effects of failing to meet expectations, and failure and loss. It also seeks to address at least two of the emotionally-charged responses to pain, disaffection and hardship, namely rumination and exaggeration, both of which can occasion suffering and inhibit the movement to recovery and eventually thriving.

Humility is deemed a key fitness and recovery-type concept because it is about awareness and acceptance of and detachment from problematic conditions. That is, seeing and noticing (witnessing) in non-judgmental ways and then living meaningfully with change, uncertainty and imperfection. Recall that Tangney too sees humility as being about realistic choices related to reality, self-assessment and, where necessary, the recognition of failure—all as a catalyst for change.

This makes it useful in the development of doctrine about honest, self-assessing leaders who take stock, own up and learn from mistakes. It is also hypothesised that this can ensure enhanced resilience and a forgiveness of failure, provided the consequences of such are noted, taken up and not given as a mere excuse for bad behaviour or poor performance. Reflecting pastorally, comments on humility are related to concepts of personal recovery and holistic fitness. For example:

- Liberative quality: being truly ourselves. In those seeking to be themselves and acting with integrity, humility offers an opportunity to be heard and understood even in the midst of failure, pain or loss; and

- Encouraging the person to face his or her limits. How many times do people suffer as they face uncertainty, loss, retirement, being overlooked, or missing promotion? More broadly, facing limits is a daily occurrence in all planning environments.

Again, to be clear, humility is not simply about accepting inadequacy; rather, it involves a movement—a choice to own up and to develop personally and collectively. Lest it be taken as feebleness, Joseph Doty and Daniel Gerden (drawing on the former's experience as a battalion commander), assert that:

> Humility must never be viewed as a weakness. Quite the contrary; a leader who can maintain an unpretentious disposition will likely inspire a sense of camaraderie and *esprit de corps*.[50]

Conclusion

This article has proposed humility and, to some extent, detachment as key supports for honest self-assessment and reorientation in the midst of recovery, adjustment and the movement to thriving. It began by locating the term humility in the context of courage and resilience. It has advanced the concept of humility as a self-care choice for the Defence community to manage the incompleteness, change and performance issues that service life will inevitably occasion. It has also advanced the concept in terms of assisting leaders to accurately self-assess, without over-ruminating, in order to engage, retain and develop their teams.

The article has concluded that honest, yet self-kindly inner awareness and rigorous self-knowledge can assist in leadership engagement. It has also highlighted the emerging evidence that humility as a personal choice can support holistic mental treatment regimens as people take stock and make appropriate recovery action based on sound information. However, as this is a reflective paper, extensive quantitative workplace-related research will be needed to confirm humility's significant potential and to embed it appropriately in Defence's training continuum, and in leadership development and treatment and recovery strategies.

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Command versus technical authority: lessons from the 2nd General Health Battalion

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Introduction

Historically, military medical units were commanded by senior doctors. All of the renowned hospitals that form the heritage of the ADF had medical commanders: for example, Colonel Thomas Henry Fiaschi of the 3rd Australian General Hospital at Lemnos; Lieutenant Colonel Wilfred Giblin of the 1st Casualty Clearing Station at Gallipoli; Lieutenant Colonel Henry McLorinan of the 2/1st Casualty Clearing Station in the Middle East during the Second World War; and Major W.B ('Digger) James, Officer Commanding of the 8th Field Ambulance in South Vietnam.

Even though these doctors were no doubt reliant on non-clinical staff officer support, there was an expectation that seniority in technical (usually surgical) skill equated with authority and that the public, soldiers and the Defence Force expected final responsibility for the running of a hospital should rest with the most authoritative deployed clinician. This situation closely mirrored that in Australian civilian hospitals, where 'administrators' were responsible for only business process and logistic functions well into the 1980s.

From the 1980s in Australia and elsewhere, driven by a need for efficiency and the professionalisation of business management, civilian hospitals became increasingly reliant on non-clinical managers to develop hospital operating systems running along business lines. As senior doctors became progressively isolated within their clinical units, a new medical specialty of 'medical administration' emerged that bridged the business and clinical functions of the hospital.

Today, every major Australian hospital has (using these or similar titles) both a Chief Executive Officer, usually with a background in public sector administration, and a Chief Medical Officer, a doctor, usually with the specialty Fellowship of the Royal Australasian College of Medical Administrators. The Chief Executive Officer is responsible for delivering a targeted scope and quantity of healthcare, staffing and the logistic and business functions of the hospital, while the Chief Medical Officer is responsible for the quality and safety of healthcare, the maintenance of professional standards, the coordination of medical specialties with the nursing and allied health professions, and compliance with legal and ethical community expectations.

Neither the Chief Executive Officer nor the Chief Medical Officer is subordinate to the other; rather, both have such clearly-defined functions that the relationship is (ideally) symbiotic. However, as the Chief Medical Officer is essentially responsible for standards and the Chief Executive Officer for productivity and efficiency, competing demands can occasionally cause tension. Ideally, this is a collaborative tension, with the fundamental shared goal of delivering the best health outcomes for the community.

Healthcare in the ADF is in a process of transition towards a command/administrative and clinical leadership structure that mirrors civilian hospitals. The Surgeon-General of the ADF for many years has been the ultimate technical authority responsible for guaranteeing to the Australian community the highest standard of clinical practice; essentially the equivalent of a Chief Medical Officer. With the appointment of the Commander Joint Health Command in 2008, the ADF created the equivalent of a Chief Executive Officer. However, unlike in civilian

healthcare, since the inception of Joint Health Command these two positions have been held by the same person.

Lower levels of clinical and command authority follow no clear pattern. Each of the single Services has both a Director General (1-star) and Director (O-6) of its health functions but neither of these positions is solely command/administrative or clinical. Army Senior Medical Officers at most of the manoeuvre brigades no longer exist, having been replaced by Senior Health Officers who may or may not have a nursing or allied health background. Senior RAAF medical officers occupy largely administrative and occupational health rather than clinical roles.

In contrast, other areas of the ADF have clearly recognised the need for clinical authority. For example, Navy's Fleet Medical Officer is responsible for clinical advice to health elements at sea. The Senior Medical Officer (J07) at Joint Operations Command has technical authority—but no command authority—over all deployed clinicians. Joint Health Command has several senior (O-6) officers with responsibility for clinical policy, such as the Directors of Military Medicine and Mental Health. However, command of health assets technically controlled by these positions is devolved to individual unit commanding officers or operational and formation commanders. Not surprisingly, this can lead to uncertainty when solving problems or designing plans that have both technical and operational considerations.

In Army, the clearest distinction between command/administrative and clinical authority is in the positions of Commanding Officer and Director of Clinical Services at the 2nd General Health Battalion. The 2nd General Health Battalion was last commanded by a medical officer in 2009. The 1st Health Support Battalion, when it operated as a Role 2E hospital prior to the Combat Health Restructure, last had a medical officer as commanding officer in 2005.

The change to General Service Officer command of Army's Role 2E hospitals was, in part, driven by the lack of suitably-qualified medical officers and, in part, by the emergence of very well-qualified General Service Officer candidates for the position. The requirement to deliver, day-to-day in a busy hospital, both clinical and command/administrative leadership functions no doubt acted as a catalyst to the adoption of the civilian model.

The rationale for the appointment of a Director of Clinical Services was to provide technical leadership and governance. As a respected subject-matter expert, the Director of Clinical Services could exercise authority over clinicians held individually responsible not only to the military chain of command but to the Australian community through external regulation by the Australian Health Practitioners Authority and the specialist medical colleges.

This article outlines the responsibilities of the Commanding Officer and Director of Clinical Services at the 2nd General Health Battalion and highlights how the tension inherent between the two roles, when properly understood, works to enhance the clinical capability of the organisation. It also highlights the potential broader application of such a relationship between command and technical functions in the other Services, and in other ADF technical fields.

Responsibilities of the Commanding Officer and Director of Clinical Services

Command and technical responsibilities within the Role 2E capability differ markedly between the training and operational environments. Although the 2nd General Health Battalion has a 'live dependency' on major exercises, in reality few (if any) very seriously ill patients are treated during these brief periods, leaving the majority of the year to providing primary care (general practice) in garrison health centre augmentation or on field exercises, or conducting individual training, equipment maintenance, and administration. In contrast, even on low-intensity operations, the focus of the deployed hospital is the provision of clinical care up to the level of complex surgery, with the implicit requirement to meet or exceed Australian civilian hospital standards.

In garrison (including support to major field exercises)

The Commanding Officer generates a unit capable of deploying on operations in accordance with the Chief of Army's Preparedness Directive, and provides personnel and subunits in support of domestic exercises and programs such as the Army Aboriginal Community Assistance Project. The Commanding Officer is responsible for all the non-clinical functions of the hospital, including security, personnel, logistics, and planning for exercises and operations. This requires personnel leadership, discipline and administration, oversight of the Technical Regulatory Framework for equipment, financial governance, input to health doctrine and training, and liaison with higher headquarters.

The Director of Clinical Services is the unit representative of the chain of technical control that leads through 17th Combat Service Support Brigade to the Surgeon-General of the ADF. In garrison, the four main responsibilities of the Director of Clinical Services are maintenance and enhancement of the clinical workforce, including training, technical performance management, and selection and mentoring of clinical teams; advice on equipment resources; development of clinical policy; and oversight of the (usually limited) 'real life' clinical work of unit staff supporting exercises.

The major tool used by the Director of Clinical Services to harness the multidisciplinary expertise of the hospital is the Clinical Governance Committee. This includes representatives from all hospital departments, and might be better understood as a 'clinical leadership committee', as it is the primary means by which the clinical functions of the unit are directed. The committee structure is effective as there are frequently issues that can be solved within the technical resources of the unit that might not be visible to individual departments.

The 2nd General Health Battalion's establishment rank for the Director of Clinical Services is Colonel, in order to exercise authority over clinicians of the hospital who usually hold ranks between Captain and Colonel, whereas the rank of the commanding officer of a battalion-sized unit is Lieutenant Colonel. This rank disparity has no bearing on the command authority of the Commanding Officer. Until now, the Director of Clinical Services has been a Reservist as for many years there have been no Regular Army hospital specialists; however, this is likely to change with the introduction of the full-time Medical Specialist Program.

On operations

The current ADF operational construct deploys subunits, units and formations that are constituted specific to particular requirements. In recent decades, task-organised health units have occasionally been the primary focus of such deployments (such as Operation TAMAR, the 1994-95 response to the Rwandan genocide), more often a principal component of the multifaceted response to humanitarian emergencies (such as Operation SUMATRA ASSIST, the response to the 2004 Indian Ocean tsunami) and most often a small part of the force protection element for a peace enforcement operation (Operation STABILISE, East Timor, 1999-2000) or training task in warlike conditions (Operation OKRA, Iraq, 2015-present).

The health elements of Operation TAMAR and the first UN hospital in Dili were commanded by doctors. However, by the middle of the decade 2001-2010, the command of such units had passed to non-clinicians. The experience of officers embedded in the Dutch Role 2E hospital in Tarin Kot in 2007-10 and the NATO Role 3 hospital at Kandahar Airfield, 2012-14, suggested that a deployed doctor with overall responsibility for the clinical work of the hospital would be a valuable addition to the ADF's hospital deployed command team.

The first time the ADF deployed a Director of Clinical Services on operations in one of its own hospitals was on Operation OKRA in Iraq in 2015. The 37-strong (including 6 doctors) Australian and New Zealand staff of the ANZAC Role 2E Hospital Taji was commanded by a Major, with a Lieutenant Colonel as the Director of Clinical Services. Drawing on the 2nd General Health Battalion's doctrine in the garrison environment and limited experience on major exercises, as well as building on experiences while embedded in deployed coalition hospitals, a delineation of responsibilities rapidly emerged.

The Officer Commanding performed essentially the same functions as listed above for the Commanding Officer of the 2nd General Health Battalion in garrison, with overall responsibility for achieving the mission of the hospital within the medical rules-of-engagement and imposed resource limitations. Major tasks included personnel command, leadership and management; controlling the logistic functions of the hospital, such as resupply of pharmaceuticals and other stores; generating and maintaining hospital facilities (including designing the layout of the hospital) and major equipment systems (for example, surgical instrument sterilisers and anaesthesia machine); and setting the daily schedule and priorities of effort.

Unlike the Officer Commanding, the role of the Director of Clinical Services in a functioning hospital with 'real' (as opposed to exercise) patients was quite different to that in garrison. There was essentially no requirement for credentialing or selection of staff for particular postings, as all this had been decided prior to deployment. Rather, the Director of Clinical Services had to use the capability of the hospital to the greatest clinical effect. This frequently required interpreting the medical rules-of-engagement as they pertained to the treatment of individual patients.

A common question was what constituted 'emergency' healthcare, for which all patients presenting to the hospital were eligible, and what was 'routine', for which many coalition soldiers and contractors were ineligible. Whether fluid resuscitation for infectious gastroenteritis or surgery for acute appendicitis are treatments for 'life-threatening emergencies' were decisions that could only be made with clinical knowledge of the risk of alternatives.

The Director of Clinical Services took ultimate responsibility for triage in and out of the facility (understanding the risks of all options), and for all treatment decisions, most notably those relating to potential conflict between the medical rules-of-engagement, resource limitations and medical ethics. Tasks supporting these responsibilities included setting expectations of the clinicians, including establishing a process for resolving disagreements on clinical issues; developing clinical policies that encouraged uniformity of practice within agreed clinical practice guidelines; handling healthcare complaints and investigating critical incidents; and leading a process for identifying and mitigating clinical risk, with particular focus on infection control.

The Director of Clinical Services had to create an understanding among clinicians that waiting for decision by consensus could lead to being overwhelmed, and that occasionally the Director of Clinical Services' authority would need to be respected regardless of individual dissenting opinions. The scopes of practice of individual clinicians had to be defined, taking into account both individual skills and the risk of evacuating patients from the facility.

In the deployed environment more so than in garrison, there is an inherent tension between the roles of the Officer Commanding/Commanding Officer and the Director of Clinical Services. The latter must aim to provide the best clinical service to individual patients; the former sets the limits on what can be achieved with the resources available, the tactical situation and the higher commander's intent. Except in the unusual situation of unlimited resources, the Director of Clinical Services should be highlighting areas in which the hospital could improve its clinical performance through the acquisition of equipment, the reallocation of personnel or the redesign of procedures.

The Officer Commanding/Commanding Officer must fight for this prioritised list of requests but must ultimately declare when no more can be done. The Director of Clinical Services then uses the resources made available to the best advantage—accepting that this will sometimes require compromise of usual civilian standards of practice. Clinical responsibility for such pragmatic decisions rests with the Director of Clinical Services. Therefore, the Director of Clinical Services' role is 'aspirational', in so doing fulfilling the Australian public's and external regulator's (that is, the Australian Health Practitioners Authority's) expectations of healthcare practitioners, while the Officer Commanding's/Commanding Officer's is 'pragmatic'.

The Director of Clinical Services is subordinate to the Officer Commanding/Commanding Officer in all but one domain. To the greatest degree possible, the Director of Clinical Services is responsible for the hospital's adherence to the external regulations that apply to all Australian healthcare practitioners. This transcends the authority of the Officer Commanding/Commanding

Officer and the responsibility of the Director of Clinical Services as an Army officer, being instead a responsibility to the Australian nation, which expects the same standards of the doctors in its Defence Force as it does of all Australian doctors. ADF doctrine recognises this by stating that 'medical personnel … cannot be … compelled to carry out any act incompatible with their humanitarian mission or medical ethics' (Commonwealth of Australia, 2006).

The practical application of this responsibility is that the Director of Clinical Services must advise the Officer Commanding/Commanding Officer on things that *should or should not occur* (taking into account the command prerogative to accept a greater than usually tolerable risk in order to achieve a mission) and things that *must or must not occur*, which are beyond the authority of the Officer Commanding/Commanding Officer and indeed Defence.

Examples of things that *should* or *should not* occur include not allowing staff to work beyond their scope of practice; not transferring patients to hospitals with inadequate resources to treat them; not attempting resuscitation of unsalvageable patients; and ensuring that only medical officers perform duties that are legally the sole responsibility of doctors, including prescribing medications, ordering and interpreting diagnostic tests, and performing surgery or administering general anaesthesia.

Examples of things that *must* or *must not* occur, regardless of operational commands, include not permitting euthanasia; not treating patients without their consent (unless in the emergency treatment of an unconscious patient when consent cannot be sought and would reasonably be expected to be given); and reporting instances of practitioner impairment or unethical behaviour to the Australian Health Practitioner Regulatory Agency, even if this risks compromising the clinical capability of the hospital.

Higher responsibility to an authority outside the ADF is perhaps a confronting notion to many within Defence. However, this is essentially an extension of the non-combatant status afforded medical personnel since armed forces first incorporated physicians and surgeons. ADF doctrine states that the role of the Royal Australian Army Medical Corps is 'to contribute to the Army's operational capability through the conservation of manpower by promoting health and well-being, through the prevention of disease and injury, and through the care, treatment and evacuation of sick and wounded' (Commonwealth of Australia, 2016a).

The RAN and RAAF are less prosaic but have similar intent. These roles are potentially in conflict with the duty of Defence clinicians, as 'every ADF doctor is a non-combatant and remains obliged to treat all patients (including enemy combatants) equally and with primary regard to welfare rather than operational capability' (Neuhaus *et al*., 2001). This accords with the Medical Board of Australia's code of conduct, which requires that doctors must 'make the care of patients their first concern' (Medical Board of Australia, 2014a). The inherent tension between the roles of the organisation and the clinicians who serve in it are similar to the tension between the Director of Clinical Services and the Officer Commanding/Commanding Officer.

Knowledge/experience required of the Director of Clinical Services

Both Australian and UK experience suggests that the Director of Clinical Services must have a broad understanding of military healthcare structures and processes, at least some understanding of the operational environment, and be skilled at negotiating with staff officers and commanders (Mahoney *et al.*, 2011).

Specific knowledge and experience includes a technical understanding of modern combat casualty care (including the principles of damage control surgery and when to apply them; blast/ballistic wound patterns and their treatment; and the imperative to move casualties rapidly through the continuum of care); an understanding of resource limitations in the deployed environment, and how these might be overcome; an understanding of at least the basics of every hospital specialty, so as to be able to provide governance of clinical decisions and a 'second opinion' when needed; and experience in triage and managing the resources of the hospital during times of near or beyond capability workload, as occurs during mass casualties.

Key relationships

ADF doctrine identifies the Surgeon-General of the ADF as the technical authority for all health matters (Whelan, 2012). From the perspective of the 2nd General Health Battalion, this authority is delegated through Director Army Health, the Command Health Officer of Forces Command, the Senior Health Officer of 17th Combat Services Support Brigade, to the Commanding Officer of 2nd General Health Battalion. While the Surgeon-General has always been a medical practitioner, many of the other positions in this chain are now occupied by non-clinicians without the knowledge to judge clinical decisions against anything other than written policy.

As written policy cannot take account of all possible individual circumstances, an informal technical reporting chain has developed in garrison: from the Director of Clinical Services of 2nd General Health Battalion to the Director Clinical Governance 17th Combat Services Support Brigade to the Surgeon-General. On operations, clinical necessity has formalised this technical reporting chain, which is through the deployed Senior Medical Officer to Joint Operations Command's Senior Medical Officer and thence to the Surgeon-General.

Nurses and medics form the bulk of the clinicians of the hospital. The Director of Clinical Services relies heavily on the leadership and technical expertise of the Senior Nursing Officer and the Senior Medic to generate nursing- and medic-specific policies and procedures, and governance of these respective workforces. Similarly, the Senior Allied Health Officer takes responsibility for pathology, radiology and physiotherapy. The Director of Clinical Services relies on the leadership and technical expertise of the Deputy Director of Clinical Services, a senior nursing posting, to enact day-to-day functions of credentialing, clinical governance and training across the span of clinical craft groups.

On major domestic exercises in the absence of the Director, the Deputy Director of Clinical Services is required to fill the Director's role and, as such, has encountered similar tensions described when working with command. An often misunderstood position is that of the Senior Medical Officer, a term with different meanings in different organisations. While the Senior Medical Officer in a headquarters is its lead clinical authority, within the 2nd General Health Battalion the Senior Medical Officer is subordinate to the Director of Clinical Services and is usually a general practitioner with responsibility for the clinical supervision, professional development and workforce coordination of the non-specialist medical officers of the unit.

Examples of actions taken by the Director of Clinical Services on deployment

Examples of responsibilities undertaken by ADF and coalition Directors of Clinical Services on recent deployments include:

- Triage during mass casualty incidents;
- Declaring patients to have unsurvivable wounds, given the constraints of care able to be delivered in the medium term, with consequent immediate palliation;
- Deciding to transfer local national patients immediately after operative surgery to local civilian facilities, rather than allowing the surgeon involved to provide post-operative care;
- Deciding *not* to transfer local nationals to civilian hospitals unable to provide an adequate standard of care, even when this conflicted with a commander's intent;
- Recommending to the Officer Commanding/Commanding Officer that clinicians be removed from the operational environment due to inadequate technical skills or dysfunctional work within a multinational team context; and
- Supervising junior doctors (general duties medical officers) providing resuscitation and ward care beyond their level of training (Mahoney *et al*., 2011).

Illustrative vignette

In East Timor during Operation CITADEL, a Health Supplementation Team comprising a Role 2E (Light) was deployed in a forward operating base near a moderately-sized town with a derelict and poorly-staffed civilian hospital. A small boy suffered a fractured femur in an accident, and was brought to the ADF facility where there was an orthopaedic surgeon. However, the medical rules-of-engagement prevented even emergency treatment of local civilians. The non-medical Officer Commanding of the Health Supplementation Team would not allow the boy to be treated.

The medical and nursing officers present were unwilling to transfer him to the local hospital (where the chance of death or permanent disability from this usually readily treatable fracture was high), as this conflicted with their professional duty of care. Confrontation transformed into 'collaborative tension' as a mid-ground was achieved, in which hospital staff accompanied the boy to the local hospital, applied traction, and were permitted to visit every day to ensure his care was optimal. In so doing, the capability of the local hospital and positive engagement with the local community were enhanced.

International comparisons

The ADF role of the Director of Clinical Services on deployment developed in the light of the highly-successful model that evolved in the UK's Role 3 hospital at Camp Bastion in Afghanistan (Mahoney *et al*., 2011). Prior to 2009, this hospital had a Clinical Director, who was simply the senior deployed medical officer. The work required was secondary to that person's primary clinical specialty, and limited to being the clinicians' advocate to the command chain.

However, recognising the need for empowered clinical authority in a rapidly-evolving environment, unfamiliar even to the many permanent-force clinicians deploying, after 2009 the position was retitled Deployed Medical Director, with responsibilities for oversight of patient management, improvement of hospital procedures, and advice to the Commanding Officer on equipment and personnel issues. The Deployed Medical Director had no role in direct patient care and could be drawn from any specialty.

US military doctrine, as applied in Central Command's Role 3 hospitals in Iraq and Afghanistan, essentially split the Director of Clinical Services' role between 2-3 people. The Chief of Trauma was responsible for triage into and out of the hospital, clinical policies, and oversight of individual patient management decisions. The Senior Medical Officer and Senior Nursing Officer were responsible for credentialing, oversight of individual practitioners, and ongoing training.

The requirement for a Chief of Trauma arose partly because, unlike in Australia, trauma/acute care surgery is a discrete subspecialty in the US in which few US surgeons are trained. In some rotations, the Chief of Trauma (a trauma surgeon) was required to oversee the work of surgeons unaccustomed to trauma. This arrangement worked very well for trauma patients but, as the intensity of combat operations diminished and proportionately more non-trauma patients were admitted, there were at times instances of dysfunctional interference in other medical specialty decisions. Unlike the ADF's Director of Clinical Services (and the UK's Deployed Medical Director), the Chief of Trauma was not characterised as a consultative position providing oversight but rather as the sole 'captain of the ship' who took (or decided not to take) advice from subspecialists.

Wider implications: health

This article contends that the separation of clinical and command functions within a Role 2E hospital, both in garrison and on operations, provides the optimal structure for collaborative

deliberation, professional oversight, and decisive action when required. Unlike the UK example, limitation of personnel in an Australian Role 2E hospital requires the Director of Clinical Services to have a direct patient-care role within their specialty. This structure may be applicable to the newly-established Maritime Role 2E hospitals aboard the Canberra-class Landing Helicopter Docks, and perhaps also in the evolving concept of the RAAF Fly-Away Surgical Team.

It is further contended that at the level of higher headquarters, separation of the functions of Senior Health Officer (responsible for generation of equipment and personnel capability) and Senior Medical Officer (responsible for clinical policy, governance of the clinical workforce, advice on acquisitions and interaction with civilian regulatory authorities—and perhaps better termed a Director of Clinical Services) would be a logical extension of this concept.

To develop collaborative tension between the technical authority and command chain, these roles should not be filled by a single person. Commander Joint Health is essentially responsible for the facilities and personnel required for garrison healthcare, while the Surgeon-General is responsible to the Australian community for the standard of healthcare provided in both these facilities and on deployment. A collaborative tension between those who hold these positions would seem to be beneficial.

Conclusion

The term Director of Clinical Services is creeping into doctrine without the position having a formal description outside the internal standard operating procedures of the 2nd General Health Battalion (Commonwealth of Australia, 2014b, 2016b). This article has outlined the role and the complexity of its relationship with command in order to fill this gap.

The model that has matured at the 2nd General Health Battalion over the last six years, and which has now been implemented on operations, is relevant to other health units. It potentially is also relevant to non-health units heavily reliant on officers with externally-regulated technical expertise working in an ADF environment in which command priorities may conflict with the ideals of civilian best practice.

Colonel Michael Reade was commissioned as a General Service Officer in 1990 and, after qualifying in medicine, has deployed to Bosnia and Kosovo (attached to the British Airborne Brigade), Timor, the Solomon Islands, twice to Afghanistan and most recently twice to Iraq, where he was the first Director of Clinical Services of an operational ADF Role 2E hospital. A specialist intensive care physician and anaesthetist, he has a doctorate from Oxford and a Masters in Clinical Trials from Pittsburgh. He is the Joint Health Command Professor of Military Medicine and Surgery at the University of Queensland and the current Director of Clinical Services at the 2nd General Health Battalion.

Lieutenant Colonel Clark Flint joined the British Army in 1983 and graduated from the Royal Military Academy Sandhurst in 1989. He transferred to the ADF in 2006. He was the Commanding Officer of the 2nd General Health Battalion from 2013-15. He deployed on Operation GRANBY (1st Gulf War), with UN Peacekeeping Force (Cyprus) in 1995, in the Balkans in 1997 and 1999, on Operation TELIC (2nd Gulf War), Operation QUICK STEP (Fiji) in 2006 and Operation SLIPPER in 2009. He completed a Masters degree in Strategy and Management at the University of NSW in 2010.

Major Sean Kennaway graduated from the Royal Military College Duntroon in 1993 and has since spent 20 years as a General Service Officer in the Royal Australian Army Medical Corps. He has held the full range of appointments in training, operations, command and staff roles. He has deployed on six operations including Operation TAMAR (Rwanda), Operation CITADEL (East Timor), Operation NIUE ASSIST (Niue), Operation RESOLUTE (PNG and Nauru), Operation SLIPPER (Middle East Area of Operations) and Operation OKRA (Iraq) in 2015, where he was the first Officer Commanding of the Role 2E hospital. He holds a Bachelor of Applied Science and is a graduate of the ADF School of Languages in both Bahasa Indonesian and Tetum.

Lieutenant Colonel Nicholas Duff was commissioned in 1994 as a direct entry officer and, until 2016, was the Deputy Director of Clinical Services at the 2nd General Health Battalion. He is currently the manager of the Enoggera Health Centre. He has seen operational service in Bougainville in 1999, East Timor on four occasions between 2000-03 and Indonesia in 2005, as well as defence aid to the civil community tasking. As a Nursing Officer, he has specialised in intensive care and emergency nursing, and subsequently achieved a Masters in Health System Management from Griffith University.

Colonel Brad McCall was commissioned into the Army Reserve in 1992. A Public Health Physician, he has served in preventive medicine roles, as Senior Medical Officer in deployed headquarters and, from 2010 to 2014, was the first Director of Clinical Services at the 2nd General Health Battalion. He is the past Director of the Centre for Military and Veterans Health at the University of Queensland and Director of the Metro South Public Health Unit in Brisbane.

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Book reviews

Australian Women War Reporters: Boer War to Vietnam

Jeannine Baker
New South Publishing: Sydney, 2015, 260 pages
ISBN: 978-1-7422-3451-9
$39.99

Reviewed by Dr Stephanie Koorey, Deakin University

By the end of the first page of *Australian Women War Reporters: Boer War to Vietnam* by Jeaninne Baker, it is clear why this book was originally a prize-winning doctoral dissertation. Baker has built on the tradition of women writers cleverly uncovering untold stories of trailblazing women, revealing treasures of unconventional lives. Baker explains and explores the impact Australian women war reporters' unusual work had—or not. The book explores relatively unchartered waters in women's literature, a suffrage over the right to confront, describe and understand conflict by writing about it. For those wondering, she avoids feminist diatribe.

Like the early 20th century works of American Martha Gellhorn, as well Eleanor Mills' and Kira Cochrane's more recent short stories of courageous women journalists in *Cupcakes and Kalashnikovs*, *Australian War Reporters* provides a counter-narrative to the prevailing view of women's lives and interests as residing mostly in social events and domesticity. This counter-narrative is still needed. This book does not glorify women war reporters as being better than their male counterparts. It provides a story about their experiences, their motives, and the political, social and ideological contexts of their career choices.

A particularly refreshing element of this work is that it retains integrity as an even-handed analysis of the women's reporting. It avoids sentimentalism, and instead reveals the differences in women's reporting, both in content and style, and reflects on this as a combination of personal, social and political influences. Baker points out how difficult it was for many of the women prior to Vietnam to fight such an expectation—both societal and editorial—and how long it took for women to get to the front line as readily as male journalists.

A refrain from many of the reporters was to try and avoid entirely, or dwell purely on, war from 'the women's angle'. 'The women's angle' was 'soft' or human interest news, while the male angle was the 'hard' or military nature of the wars. Yet this is not necessarily a problematic delineation of responsibilities. While early women war reporters wrote human interest stories because they had limited access to the frontline, they also recognised that their contributions helped to expose the nature of war. Indeed, the human interest side of conflict—such as the current sensational headlines of drowning deaths of those fleeing Islamic State—is now mainstream reporting.

Where human interest stories proved problematic was demonstrated by the unintentional fallout from Tilly Shelton-Smith's coverage of Australian forces in Malaya in World War 2. She was restricted to only being able to cover the social aspects of the deployment. After her portrayal of their barracks being 'more comfortable than home', photos of troops dancing with Asian women, and cringe-worthy headlines such as 'I Go to Curry Tiffin with 400 of AIF', were as much the AIF's poorly-conceived idea of a morale-boosting publicity exercise as an error of editorial judgment.

The work is arranged chronologically, starting with the 1899-1902 Boer War in South Africa, where Australian nurse Agnes Macready, 'an outsider … as an Australian and a woman', whose duties as a nurse—one of the few career choices for a woman at the time—ran parallel to her desire to be a journalist. She wrote for the *Catholic Press,* which had an anti-British and anti-Imperial bent, and her contributions drew uncomfortable similarities between the 'freedom loving' Boer and the Australian bushman.

Baker's book reveals there is no pre-determined gendered response to women's views on war. Many of Baker's women reporters—a number of them engaged by 'women's' magazines such as *The Australian Women's Weekly*—are constrained to the human interest topics—and, indeed, Shelton-Smith's seemingly-frivolous coverage of Australians in Malaya left a bitter legacy for other women journalists for decades. Many others raised questions about the extreme violence and futility of war, while others are strong patriots. Baker's section on the extraordinary reportage of Lorraine Stumm, covering the aftermath of the bombing of Hiroshima, portrays a sterling example of unwavering patriotic news reporting.

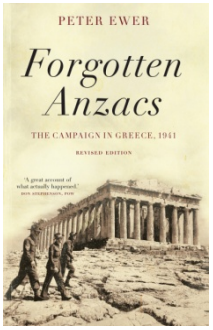
Lorraine Webb's reasons for going to Vietnam as a war correspondent reflect the greater liberation and higher education of women a generation later. Having grown up in an educated and politically-aware family, her reasons for going to Vietnam were to understand the conflict as a 'hot' war in the midst of a 'Cold' one. She also took practical steps to avoid being a burden to male counterparts—'if you don't ask where you plug in your hairdryer, you have no problems'. Yet Dorothy Jenner also proved the benefits of being a woman journalist. Interned in Stanley internment camp in Hong Kong in World War II, she kept a clandestine war diary written on toilet paper hidden in the heel of her shoe.

If there are any criticisms of the book, they are minor. The book might have benefitted from a different structure. The evolutionary listing of different women reporters' experiences, interspersed with analysis, becomes a little cluttered, especially in the middle sections on World War Two. A structure along thematic lines might have saved such repetition.

Further, citing Enloe from 1983, Baker's reference to women being able to 'observe' but not 'be the military' is dated. The women in Australia's armed forces, including an increasing number of star-rank officers, are testimony to the breadth and depth of Australian women's interest in 'being' the military. Also, the title is not quite accurate, as the final short chapter—admittedly titled the Afterword—is an update on women foreign and war correspondents of the early 21st century.

Stories of these adventurous women's lives should be known by Australians young and old. *Australian Women War Reporters* is a good bookshelf companion to Australian classics such as Myles Franklin's *My Brilliant Career* and *My Career Goes Bung*, and stories of women's experience of war as portrayed by international classics such as *The Diary of Anne Frank* and Khaled Hosseini's *A Thousand Splendid Suns*. *Australian Women War Reporters* tells us much about Australian women, and a great deal about Australian culture and values.

Forgotten Anzacs: The campaign in Greece, 1941



Peter Ewer
Scribe: Melbourne, 2016 (revised edition), 448 pages
ISBN: 978-1-9253-2129-6
$49.99

Reviewed by Jim Truscott

It is an unforgivable part of Australia's involvement in the campaign in Greece that a medal was not struck when it was the second time in history that an Anzac Corps had been designated. When you read this book, you will find that it was all due to perfidy by Churchill and ignominy by Blamey. For Churchill, it was the opportunity to land troops on European soil nine months after Dunkirk, even though he knew that Greece was doomed and that, at best, an expeditionary force could only achieve a small delay to German occupation. Sadly, it also gave Germany the chance to send reinforcements to North Africa.

Worse still, the Australian, New Zealand and Greek Governments were not privy to the British War Cabinet's assessment that Greece would fall within one week of a German attack. The force that the British wanted to send did not meet the fundamental standards of modern warfare. The Greeks simply did not have enough ammunition, there were not enough ships to move the necessary force, and the mountains

would provide no barrier to the Germans. Furthermore, the British were deceitful in advising Blamey that Prime Minister Menzies had been briefed.

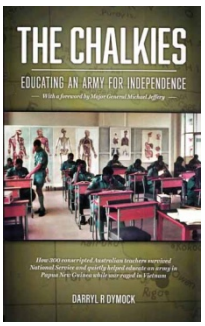
To compound matters further, Blamey pulled the 6th Division back from Libya even though the 7th Division was ready, because he hated its commander, Lavarack. When the transport of the expeditionary force began in March 1941, there were only enough ships for one brigade per week and the force was never established in full by the time the Afrika Corps struck in North Africa. There was a massive onslaught by the Luftwaffe on Greek ports and residential areas as the force was getting organised, so much so that the 2/6th battalion had to come ashore in small boats.

The Greeks and the allies fought hard, bitter and fanatical battles in the snow, cold, mud and frostbite, and the campaign turned into a blocking force on a wide frontage to stop a blitzkrieg. In one instance, a staged withdrawal by the 2/8th Battalion became a rout. The British failed to use tanks in force and were decimated. The force faced constant encirclement and the book contains many accounts of tactical actions at platoon through to corps level.

The battle of Pinios Gorge features scantily in the pantheon of the Anzac legend but it was an epic and successful fighting withdrawal. There was meagre air support and no Australian Air Force at all but the Anzac Corps was steady under air attack during the race to the beaches of southern Greece and our Anzac Dunkirk, where the German Stukas nearly turned the evacuation convoy into a maritime morgue.

Hence the ensuing battle of Crete was as much a battle against military privation as well as against the Germans. Accordingly, the cost of Churchill's propaganda efforts to impress American public opinion and uphold British honour was high, and the chance to finish the war in North Africa in 1941 was lost. It is a thoroughly damning, wistful and enjoyable read.

The Chalkies: Educating an Army for Independence



Darryl Dymock
Australian Scholarly Publishing: North Melbourne, 2016, 208 pages
ISBN: 978-1-9253-3377-0
$39.95

Reviewed by Gregory J. Ivey

The 1965-72 conscription period saw 300 'nashos' posted as education instructors to the then Territory of Papua and New Guinea (PNG). The Australian Army, in a rare example of intelligent conscript deployment, allocated recruits to a role making the best use of their civilian qualifications. At that time, the Australian Army was engaged constructively not only in the (long-term) defence of PNG but also in the preparation of the PNG Army for a model role in the future nation. A few, well-placed Australian senior officers saw conscription as an opportunity to accelerate an education scheme of national importance. During this conscription era, about 40 teachers ('chalkies') were selected each year, after recruit training, to educate servicemen across the five military bases in PNG Command.

This book covers new ground by analysing the military experience of 73 of these chalkies and by summarising the experience of some of the wives who joined them. Dymock has relied on government, Army and private records, as well as published material and interviews of more recent times. He places the chalkies' personal recollections of events and people within the prevailing political and military context. There are flaws in relying on the memories of circumstances and opinions from 50 years ago but the author has acknowledged this. These then-young professionals appear to have retained detailed recollections of pivotal events (like Army training) and career firsts (like teaching English as a second language), supplemented by their photographic records.

Dymock describes sequentially the chalkies' conscription and induction into the Army; their selection for PNG service; their adjustments on arrival; their Army roles, experiences and attitudes; their Army

discharge; and the consequences for their characters and careers. These stages are fleshed out with personal examples and anecdotes, either serious or humourous in nature. Dymock provides carefully-crafted quotations from named individuals such that the reader is able to appreciate both the emotion and the meaning portrayed.

Where consistencies occur across place or time, the author weaves the presented facts together to allow the reader to perceive patterns in military behaviour. For example, while there are persistent features in Australian Army recruit training over the generations, this mixture of professional conscripts and lowly-educated Regular instructors was demonstrably a dangerous collision in the 1960s. Dymock draws on his own experience, and that of scores of chalkies, to record some abuses, stressors, victims and achievers in the Army recruit training culture of that conscription era. It was a far cry from comedian Barry Humphries recollection of recruit training during the 1950s National Service scheme:

> In the evenings, as it cooled down a bit and the foul-smelling dust (of Puckapunyal) settled, it was almost pleasant to sit beside the tent on an upturned box reading, or teaching myself to smoke a pipe.

The 1950s conscripts were exempt from fighting overseas, whereas the destiny of the 1960s conscripts was, in many cases, South Vietnam and post-traumatic stress disorder.

The author provides a discussion on the evolution, indeed revolution, of the PNG chalkies scheme and gives credit to its political and military advocates. The reader soon appreciates that credit is also due to the nasho teachers who first implemented the project successfully in difficult circumstances. As the scheme developed, geopolitical and ministerial changes occurred, yet the Australian Army commanders and the Royal Australian Army Education Corps held resolutely to their vision and their trust in the educational skills of these nasho sergeants working in a very different context.

Dymock presents opinions of the PNG chalkies which differ from his survey results, such as those of author Mark Dapin and PNG serviceman Dennis Armstrong. Dapin interviewed about seven PNG chalkies during a break from researching the experiences of nashos in the South Vietnam war. His 2014 article raised some issues which Dymock responds to in his book. Dennis Armstrong conducted a psychological study of 113 PNG chalkies for his master's degree while working in PNG Command. His study provides a challenging juxtaposition to the Dymock data as it indicates a different view of the chalkies' attitudes to PNG people and the chalkies satisfaction after PNG service. Yet Armstrong's conclusions may not be as contradictory as they first appear and may have been worthy of more discussion.

There appear to have been variations in the chalkies attitudes to the local PNG population and this could be explained by the 'degrees of separation' phenomenon. Some single chalkies are likely to have found continuity between the prevailing Army culture and the values in PNG society. The village basis of PNG society prized physical strength, skill and cunning which the Army also traditionally valued. Single chalkies lived on base and lived in the Battalion/Depot Sergeants Messes with well-trained and Westernised PNG men. Such PNG servicemen were respected by these chalkies, whose regard for them increased in patrol or social situations. For other chalkies, mixing often with lesser-trained or less-Westernised people, their attitudes towards indigenous people may have become different.

It seems likely that the chalkies also experienced 'degrees of separation' from the Army in PNG and this may be related to their varying post-Army attitudes to their service. For example, Murray Barracks chalkies displayed the full range of Army proximity/distance. Some of those chalkies worked embedded in education administration, some taught servicemen on or off the barracks, some taught non-servicemen at Iduabada or Bomana and some even wore civilian clothing daily. Married chalkies at Murray Barracks lived off the barracks with their wives, while single chalkies lived in a Sergeants Mess with civilians and servicemen. So some chalkies did fulfil the 1969 promise of RAAEC Major Henry Dachs that 'they did (psychologically) leave the Army when they joined the (PNG) Education Corps'. For some other chalkies, Army constraints seemingly remained psychologically present until they removed their uniform at discharge, which may explain some of the scathing assessments they made about their service at discharge, and later.

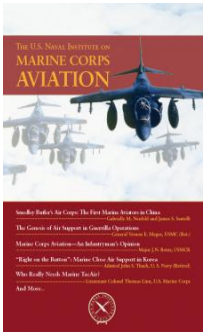
One interesting theme running through the book is the compulsion for these nashos to transition from the familiar to the unknown, both geographically and culturally. For example, many of them had to move interstate for recruit and/or infantry training, where the cultural differences were also highlighted. Then,

they transitioned from raw recruit to corps member in yet another location. Later, they travelled to PNG to carry out their selected role with Pacific Islands soldiers. While this last transition was held to be the most challenging, it was arguably more so for their wives. The chalkies continued to work in PNG within a now-familiar Army culture—only their rank, location and students were different. Their wives, however, had to adjust to leaving home, arriving in a new country, married accommodation issues, husbands away on patrol, and employment issues in many cases.

Because the PNG chalkies scheme is relatively unknown in the military and general community, there are new perspectives for the reader. This book is the first attempt to comprehensively cover this scheme. By bringing to publication these previously-unavailable stories, Dymock has done a service for the participants and the interested public in Australia and PNG. Yet readers may have been interested also in seeing some period letters or published memoirs. This book also opens the door to further research, which might include a survey of the surviving RAAEC students in PNG from that era or a comparative survey of the chalkies who served as instructors in Australia and Vietnam.

The format of the book is user-friendly: the endnotes, bibliography and index are comprehensive; the colour photos are representative of the lives of the subjects; the list of military abbreviations is welcome; and the appendices are useful. The foreword by a former Governor-General provides an additional Commanding Officer's perspective on PNG and the chalkies scheme. The text has been written perceptively yet objectively by an experienced author. In the same way that art attaches meaning to life's experiences, Dymock provides meaning to those diverse experiences which befell these nasho chalkies—the good, the bad, the unexpected and also the memorable. He has also channelled the spirit of acclaimed historian A.J.P. Taylor, as its readers will 'feel impelled to turn the page'.

The US Naval Institute on Marine Corps Aviation



Thomas J. Clutter (ed.)
Naval Institute Press: Annapolis, 2016, 165 pages
ISBN: 978-1-6824-7041-1
US$19.95

Reviewed by Air Commodore Mark Lax, OAM, CSM (Retd)

The US Marine Corps has always prided itself in providing a complete combat package to US military expeditionary operations. Part of that package is Marine aviation. This publication by the US Naval Institute Press is a compendium of previously-published articles expounding the history and contribution of Marine aviation to Marine operations as whole for almost a century.

The nine articles included in this slim edition are of varying lengths, written and published well beforehand in the Institute's *Proceedings* between 1949 and 2008. They selectively cover a wide range of aspects of Marine air with a focus on ground attack and close air support—perhaps what the Marines do best. While six papers are historical in nature, three provide opinion including one from a US Air Force major.

The first use of Marine Air occurred in August 1919, when the Marines attacked insurgent camps in Haiti. From this early operation, the Marines developed dive-bombing techniques to support their infantry colleagues in close quarters, and the requirement for indigenous air was quickly cemented in Marine doctrine. Amphibious combined arms operations were developed soon after.

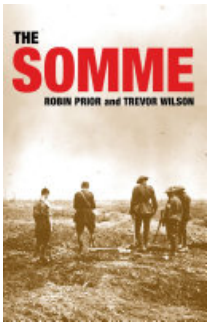
From these beginnings, the concept of the Marine Air-Ground Task Force (MAGTF) rapidly evolved. But it was success in the five-year Second Nicaraguan Campaign in the late 1920s and early 1930s that really reinforced in the minds of Marine generals the need for 'on call' air support. General Megee's paper covers this campaign and its lessons admirably, and the campaign is still taught in their Service schools.

Chapters cover the Korean War, Lieutenant Joe Foss (who was the first Marine 'Ace in a day'), Marine Air's contribution to NATO in the 1980s, and the China campaign in the 1930s round off the historical contribution. In this regard, the book is an easy read, although I found General McCutcheon's 66-page history of Marine Air in Vietnam a little tedious—and perhaps better left for the serious historical researcher.

The most surprising chapter I found is called 'Stop Quibbling and Win the War'. It was penned by US Air Force Major John Valliere, a student at the Marine Corps Command and Staff College in 1990. His short but incisive paper discusses the vexed issue of command and control of air assets—the fight between the MAGTF commander and the Joint Force Air Component Commander—essentially, who should 'own' the air. He points out that in 1986, the US Marine Corps and US Air Force signed a Joint Chiefs of Staff Omnibus Agreement which clearly gives the MAGTF commander operational control of his organic air assets during joint military operations. What followed was an exchange of letters clarifying what the Joint Chiefs of Staff actually meant! Despite the letters, and later Gulf War experience, this debate clearly continues.

The book is in paperback format of 165 pages with a short index and no photos. According to the preface, this publication is one in a series the US Naval Institute has commissioned to 'reintroduce readers to significant portions of this [the Institute's *Proceedings* and *Navy History Magazine*] virtual treasure trove'. With this publication, I think they have succeeded. Recommended.

The Somme



Robin Prior and Trevor Wilson
NewSouth Publishing: Sydney, 2016, 358 pages
ISBN: 978-1-7422-3502-8
$39.95

Reviewed by Commander Robert Woodham, RAN

In the centenary year of the Battle of the Somme, this book provides a timely challenge to the view of the five-month battle, and perhaps of the war on the Western Front in general, as a visitation of slaughter on the masses by military commanders who were hopelessly out of touch with the realities of modern warfare, and who were beyond the control of politicians. Perhaps such a caricature was the only way, then as now, that the horrific loss of life for such seemingly paltry gains could be understood.

On the first day alone, for example, the British Army suffered 57,000 casualties for a gain of three square miles. Selection and maintenance of the aim seemed to follow the simple formula of attrition to the point of capitulation—and the generals could apparently think of nothing more imaginative than repeated frontal attacks by infantry, conducted at a slow walking pace. Perhaps popular culture, from Siegfried Sassoon to Eric Bogle, to 'Black Adder Goes Forth', has embedded the concept in our minds.

Robin Prior and Trevor Wilson challenge this view, at least in part, by strongly making the case that the British Government, through the War Committee, provided regular control and oversight of the most senior military commanders not only for the Somme but for Britain's participation in the war from its earliest days. Political control continued throughout the months of the Somme battles, during which time the progress, or lack of it, was well understood and much debated by senior government figures.

For example, a month into the Somme offensive, Winston Churchill, then First Lord of the Admiralty, pointed out to the committee the feeble progress made towards ephemeral objectives with unrealistic plans envisaged for future operations. The Commander-in-Chief in France, General Sir Douglas Haig, in rebutting Churchill, tried to put a positive spin on results but, as the authors point out, the substance of this rebuttal merely admitted that little concrete progress had been made and foresaw the likelihood of a continuing operation into the following year.

If the War Committee was dissatisfied with progress on the Western Front, they could have provided alternative direction or even recommended the replacement of Haig, as had been done with his underperforming predecessor. The fact that they did not shows tacit approval, at the very least, of operations on the Somme.

This is not to say, however, that the military leadership, particularly Haig, did not display significant shortcomings, as the book makes very clear. Prior to assaults on the German line, even basic computations of the required artillery support were not made. Instead, the approach seems to have been to cobble together as much artillery as possible, then hope it would be sufficient. There was also a lack of coordination along the front, which resulted in assaults being conducted on limited sections of the front, without flanking units being ordered to provide support or diversionary activities.

The value of the creeping artillery barrage was established early on, and this tactic seems to have been generally very effective when it was used, but all too often the coordination of the barrage with the infantry advance was severely lacking. Incidentally, it was the creeping barrage which produced the popular misunderstanding, alluded to earlier, that the infantry were expected to advance at a slow walking pace to their deaths; when they were walking slowly, it was usually because they were following a creeping barrage, and hence their chances of survival were much better than if they were not closely behind the artillery curtain.

Reading the book reminded me that of all the belligerent nations who participated in the Great War, Britain should have been best prepared for its conduct, having had the opportunity to learn the key lessons, albeit on a smaller scale, in the Boer War. One of these was that frontal assaults against entrenched infantry armed with high velocity, magazine-loading rifles and machine guns resulted in heavy casualties for the assaulting troops. The balance seemed to have tipped strongly in favour of the defenders.

This lesson seems to have eluded General Haig, who had been chief staff officer to the cavalry commander during the Boer War. In that earlier conflict, he did learn the importance of artillery preparation, improving the field artillery and increasing its calibre, as well as the vital need for an efficient staff system to ensure that planning, coordination between forces, and logistic requirements were met. By the time of the Somme, however, these lessons seem to have been only partially remembered.

During the course of the book, an image of Haig emerges which is not flattering. His repeated predictions that German morale was on the brink of collapse, based on nothing more than optimism—and repeatedly proven wrong—and his expectation that a breakthrough in the German line would be exploited by cavalry, indicate a delusional man. He was also prone to inflated estimates of German casualties, sourced from who knows where. Haig was a cavalry officer, but then so was Winston Churchill, and Churchill knew that 'letting loose the cavalry in the open country behind' (the German line) was a fantasy. Haig seemingly did not.

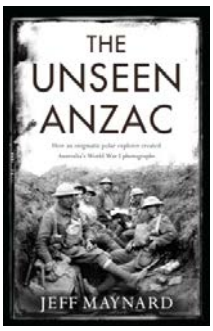
The way in which Haig dealt with subordinates, particularly the Fourth Army Commander, General Rawlinson, was often ineffectual. The direction that he provided could be contradictory or else merely consisted of bromides. The book gives examples of situations where Rawlinson simply followed the direction that he thought reasonable and ignored the rest. Haig also interfered at the tactical level and did not allow sufficient time for effective planning in the subordinate headquarters.

The book is not aimed only at the strategic level. It contains a detailed, day-by-day account of the battle throughout its course, well supported by clear maps. One fascinating section contains a description of the six basic types of employment faced by infantry units: training/resting, in reserve, in support, in close support, holding the front line, and attacking. The realities of each are explained, along with typical rotations through the six categories.

The book also describes the various personalities involved, notably the divisional commanders, as well as tactical innovations such as the use of tanks, and it explains the impact of weather and terrain on the progress of the fighting. I found that this amount of detail helped me appreciate what the Somme was really like for the average soldier, as well as its progress at a broader level.

It would be all too easy for a book about the Somme to become a thoroughly-depressing read, cataloguing as it must a seemingly-unremitting tale of death and destruction for little gain. On the contrary, I found this book to be thoroughly readable, due to its lively style and fascinating insights on every page. Although it does not hold back from criticism, such comments are always well supported by clear evidence, based on the authors' meticulous research. This is a highly authoritative, scholarly and engaging read.

The Unseen Anzac: How an enigmatic polar explorer created Australia's World War 1 photographs



Jeff Maynard
Scribe: Melbourne, 2015, 296 pages
ISBN: 978-1-9251-0678-7
$39.99

Reviewed by Jim Truscott

This is a truly remarkable book about Australia's only official photographer from any war to receive a combat decoration. George Wilkins was arguably Australia's greatest polar explorer and greatest war photographer, who produced the most memorable collection of Australian-focused photographs during World War 1—which have become a national treasure. He went over the top of the trenches with the Anzacs, was twice awarded the Military Cross and twice mentioned in dispatches, carrying a camera but never a gun.

Wilkins learnt his photographic trade during the Balkan wars against Turkey in 1912-13 and then, in 1913, went on the first of many polar expeditions for three years, where he thrived on adventure, hardship and uncertainty. He then enlisted in the Australian Flying Corps in May 1917, just as the Australian War Records Section also officially commenced.

When General Haig banned the taking of photographs on the Western Front in order to hide the bloodshed from the public view, he tasked his Chief of Intelligence to use two official British photographers for propaganda purposes. However, Charles Bean—who was Australia's official war correspondent—became so annoyed that Australia was not given recognition for the greatest battle in Australian history at Pozieres that he organized for Hurley and Wilkins to be appointed as official Australian photographers in August 1917; one for propaganda and one for a true record. By necessity, this book is as much about Bean, who remained a civilian journalist but was not allowed to carry a camera.

Wilkins had a sense of boyhood wonder about the whole experience and, after being well behind the lines at Menin Road and the battle of Passchendaele, decided to go over the top with the Anzacs. Wilkins soon met Monash, who later described him as the bravest man in the AIF. He was twice buried by mud thrown up from shell explosions, and Wilkins and Hurley saw more fighting than any staff officer. Bean recommended Wilkins for a MC and Hurley for a MID but these awards were denied by General Birdwood. Wilkins finally received his first MID for providing front-line intelligence during the German breakthrough in March 1918.

There are several coloured pages throughout the book that place Wilkin's photographic contributions to the Australian War Memorial collection into context, as most of the images in the official history are not attributed to him. Wilkins's photos are frontal, central and free of photographic trickery, with little moving footage. Wilkins was most productive in the period from April to May 1918, where he showed life during the war in all its humanity and horror. He crawled into no-man's land to get photos back to the Australian lines. He took photos of Germans in the act of surrendering and he brought back prisoners on several occasions himself.

It is incredible that he survived the war in the face of so much photography under fire. Finally, Wilkins returned to Gallipoli with Bean after the war to photograph the Turkish side. According to General Sir John Monash:

> [Wilkins] was a highly accomplished and absolutely fearless combat photographer. Wounded many times and even buried by shellfire, he always came through. At times he brought in the wounded, at other times he supplied vital intelligence of enemy activity. At one point he even rallied troops as a combat officer. His was record was unique.

Wilkins was clearly a brave but modest man as he asked Monash to cease praising him after the war. In subsequent life, Wilkins was knighted by King George V for flying across the Arctic. He also experienced a tickertape parade down Broadway. Wilkins had a weird relationship with his wife, who he never lived with in between his many near-continuous polar expeditions over many years. He also became involved with spirit mediums, which may explain the often contradictory stories in his own biographical notes. It was fitting that his ashes were scattered at the North Pole by a US submarine. This book is a long overdue record of the man behind a significant part of Australia's military photographic history.