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14. ABSTRACT
Australia's peacetime defence capability will continue to be borne by a small proportion of the population. As with previous conflicts, this nucleus group will form the expansion base for major war. The expanded force will be volunteer-based due to Australian cultural aversion to conscription, and increased professional requirements of the military. The tools, skills, and techniques of this expanded force will be more technically demanding, therefore influencing the conventional quantitative mobilisation model. To adapt to the requirements of mobilisation for future warfare, the Australian Army first needs to re-energize mobilisation planning.

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MASTER OF MILITARY STUDIES

TITLE:

PLANNING FOR WAR:
WHY THE AUSTRALIAN ARMY SHOULD RE-ENERGIZE MOBILISATION PLANNING.

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EXECUTIVE SUMMARY

Title: Planning for War: Why the Australian Army should re-energize mobilisation planning.

Author: Major Matthew Dirago

Thesis: Australia must prepare for mobilisation during an era of unparalleled peace and prosperity. Resource limitations of both the nation and the military further amplify this challenge, as does the continuing development of technology and the concomitant demands upon skill and expertise. Nevertheless, the preparation for war in peacetime mandates development of doctrine open to critique, rehearsal, and improvement. An integrated system of mobilisation planning and doctrine at both conceptual and practical levels does not currently exist. Its development will improve Australia's deterrence and offensive defence capability.

Discussion: A small proportion of the population will continue to bear Australia's peacetime defence capability. As with previous conflicts, this nucleus group will form the expansion base for major war. The expanded force will be volunteer-based due to Australian cultural aversion to conscription and increased professional requirements of the military. The tools, skills, and techniques of this expanded force will be more technically demanding, therefore the conventional quantitative mobilisation models cannot suffice. To adapt to the requirements of mobilisation for future warfare, the Australian Army first needs to re-invigorate the influence of mobilisation within the current force.

The Australian Defence Force (ADF) defines mobilisation as "a natural extension of preparedness...the transitioning of forces from the deliberate planning for preparedness to the conduct of a specific operation or operations, irrespective of scale."¹ A review of Australian Army doctrine indicates that although readiness is a valued quality, mobilisation does not share the same pervasive influence. A developed mobilisation concept should use a comprehensive reverse engineering approach to capability development, that closes the chasm between the theory and practice of mobilisation, and emphasizes the qualitative in addition to quantitative requirements of future war.

A 2013 review into ADF preparedness concluded that "without the maintenance of baseline capabilities and capacities during benign strategic periods, the (ADF) is unlikely to have a sufficient base from which to mobilise if required in the future."² This research extends that logic to argue that baseline capabilities and mobilisation planning are integrated concepts that cannot be separated. By re-energizing mobilisation planning, the Australian Army can mitigate the shortfalls of previous mobilisation experiences, both in Australia and in other nations.

Conclusion: To meet future mobilization requirements, the Australian Army must improve its mobilisation methodology in three areas. First, it must develop subordinate level mobilisation doctrine, specifically by introducing planning at three levels: conceptual, functional and detailed. Second, it must emphasize mobilisation as a criterion when developing personnel policies. This includes workforce planning that reviews the military-civilian workforce composition. Finally, the Australian Army must develop training systems, methods, and facility options that take into account the mobilisation requirements of modern and future warfighting.

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PREFACE

A 2013 *ADF Journal* submission by Lieutenant Colonel Andrew Stevens and Dr. Haroro Ingram stimulated the concept for this paper. The authors argued that Nassim Taleb's "Black Swan" concept should drive the Australian Defence Force (ADF) strategic military preparedness. While I don't agree with the authors deduction that Australia's Black Swan is "a defence of Australia campaign against conventional military forces,"³ I do consider that the concept of aligning our preparations with a black swan event is a relevant approach mobilisation planning. The Australian Army's resurgent emphasis on foundation warfighting, shortfalls in mobilisation doctrine, and the black swan concept were the catalysts to examine the integration between mobilisation planning, doctrine, and their practical application for future war.

It is important to recognize the efforts of three people who enabled this paper. In addition to her enduring and inspiring profession example, Major Clare O'Neill, Royal Australian Engineers, provided advice to pursue mobilisation as an avenue of relevance to the Australian Defence Force. Ms Cheryl Durrant, the ADF Director of Preparedness and Mobilisation, provided strategic guidance, research support, and motivation to develop this thesis. It is my hope that the perspective of this paper will support the broader remit of the Force Design Division in enhancing Australia's defence capability. Lastly, my thanks must go to Dr. Anne Louise Antonoff, the Assistant Associate Professor of Military History at the Marine Corps University. Her inquisitive and enthusiastic approach, coupled with a passionate drive for clarity, has driven me to clearly and simply articulate broad and holistic thoughts. Hopefully the following thesis does justice to her support.

This thesis is presented recognizing the vulnerability of analysis that is reliant solely on unclassified and open-source materials. In addition, I recognize the concurrent developments occurring within the ADF. Relevant examples include the de-classification of some Army conceptual doctrine in late 2016, the coordination of mobilisation symposium, and the release of the Defence Preparedness Handbook by VCDF Group in early 2017.

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ABSTRACT (MAXIMUM 200 WORDS) Australia's peacetime defence capability will continue to be borne by a small proportion of the population. As with previous conflicts, this nucleus group will form the expansion base for major war. The expanded force will be volunteer-based due to Australian cultural aversion to conscription, and increased professional requirements of the military. The tools, skills, and techniques of this expanded force will be more technically demanding, therefore influencing the conventional quantitative mobilisation model. To adapt to the requirements of mobilisation for future warfare, the Australian Army first needs to re-energize mobilisation planning. The Australian Army can improve its mobilisation methodology in three areas. Firstly, by developing subordinate level mobilisation doctrine, and by influencing conceptual, functional and detailed planning. Secondly, by emphasizing mobilisation as a criterion when developing personnel policies. This includes workforce planning that reviews the military-civilian workforce composition. Finally, the Australian Army can re-energize mobilisation by developing training systems, methods, and facility options that enable the mobilisation requirements of modern and future warfighting.			
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The aim of this paper is to improve the Australian Army's capability to prepare for an uncertain future. Its origins lie in a paradox: Australia must prepare for mobilisation during an era of unparalleled peace and prosperity. Resource limitations of both the nation and the military further amplify this challenge, as do the continuing development of technology and the concomitant demands upon skill and expertise. Nevertheless, the preparation for war in peacetime mandates development of doctrine open to critique, rehearsal, and improvement. An integrated system of mobilisation planning and doctrine at both conceptual and practical levels does not currently exist. Its development will improve Australia's deterrence and offensive defence capability.

Within this overarching goal, several specific objectives stand out. First, integrated mobilisation planning requires adoption of a multi-level planning system – conceptual, functional, and detailed – much like that set forth in Marine Corps Doctrinal Publication (MCDP) 5 of the United States Marine Corps. Second, review and critique of any doctrine also presuppose its formal codification; in ADF terms, integrated doctrine requires codification not merely at the theoretical level, but also at the application and procedural levels. Third, the Army must consider the role of mobilisation planning within the larger framework of the Army and the Australian Defence Force (ADF) preparedness system. Finally, in identifying the necessary elements of application and procedural mobilisation doctrine, the Army must review the military-civilian mix of its workforce, capitalize on the Total Workforce Model (TWM), and develop training systems and methods that take into account the mobilisation requirements of modern and future warfighting.

Paradox notwithstanding, current reforms within the ADF provide a rare peacetime opportunity for just such a holistic reexamination of the methodology and doctrine of mobilisation planning. By building on the history of mobilization in Australia and elsewhere, exploiting the current era of reform, incorporating some theory and methodology of planning and doctrine, and anticipating the future of warfare, we can assemble a frame of reference for a fresh look at mobilisation planning and doctrine in the Australian Army. The following figure illustrates the concept behind this paper:

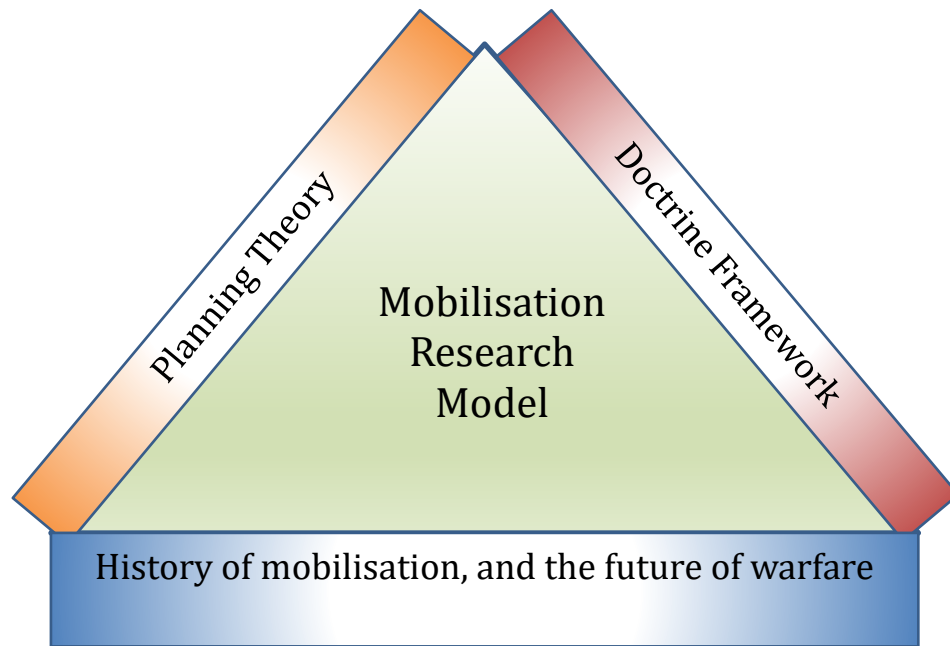


Figure 1: Research model for re-energizing mobilisation within the Australian Army

PART I: ANALYTICAL FRAMEWORK

Planning Theory

An emphasis on mobilization planning may indeed seem unwarranted in an era of relative peace and plenty, but as Lieutenant Colonel Andrew Stevens and Dr. Haroro Ingram argued in a 2013 *ADF Journal* article, strategic military preparedness should take its cue from Nassim Taleb's concept of "Black Swans." Such occurrences are "low probability events with catastrophic consequences that are largely disregarded in risk management planning due to their improbability but which, with the benefit of hindsight, are seen to have been predictable." While one might debate whether Australia's Black Swan will be, as Stevens and Ingram believe, "a defence of Australia campaign against conventional military forces," aligning preparations with a Black Swan event of some kind makes good planning sense.⁴

The Australian Army conducts planning through two primary methods; the Military Appreciation Process (MAP) and the Fundamental Inputs to Capability (FIC) analysis. The MAP is a universal planning tool employed throughout the Army. FIC analysis is a tool used to examine

organizational change, ensuring a comprehensive and holistic approach to development by considering the following factors:⁵

- Organization
- Command and management
- Personnel
- Collective training
- Major systems
- Facilities and training areas
- Supplies
- Support

Aside from these effective analysis and decision-making tools, the ADF does not direct or articulate a planning methodology that pervades the organization, restricting ADF joint doctrine to operational level planning procedures.⁶ MCDP 5, *Planning*, provides an exemplar doctrine that defines, describes, and frames the nature of planning.

MCDP 5 defines the planning process as an “ongoing, iterative, and interdependent activity” involving “the art and science of envisioning a desired future and laying out effective ways of bringing it about.” It highlights the value of planning in situations of uncertainty in order to decrease the time taken to respond, and warns of dangers related to excessive planning horizons, detail, and inflexible or prescriptive planning methods. MCDP 5 articulates the composition and interaction between levels of planning in a planning hierarchy. This dynamic model identifies the interaction between conceptual, functional, and detailed levels of planning. It identifies the general alignment between the conceptual level and the art of war, on the one hand, and the detailed level and the science of war, on the other.⁷ While not articulated in MCDP 5, the functional level is comparable to the operational level of war, in that it comprises both the art and science in varying degrees. Figure 2 graphically depicts these levels.

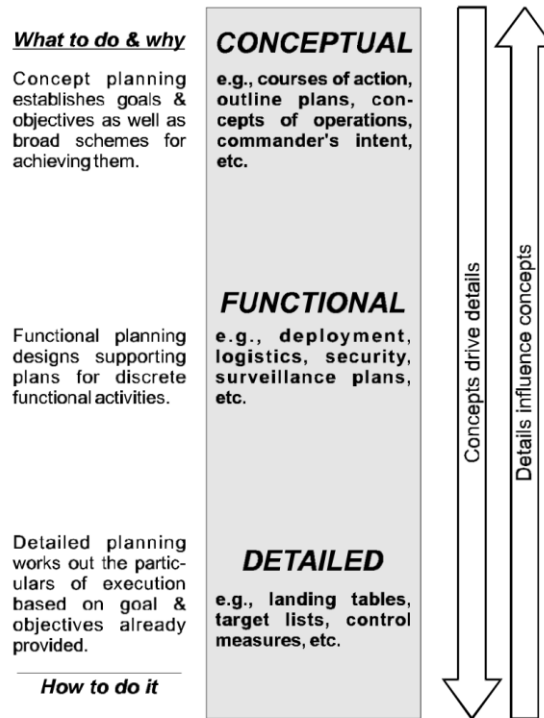


Figure 2. Proposed planning hierarchy

Source: MCDP 5 Planning

Expanding the description of planning theory, MCDP 5 defines planning modes ranging from *commitment*, *contingency*, and *orientation* modes, dependent upon the level of certainty and planning time horizon available. It differentiates between *decision* and *execution* planning, as the planning that occurs before and after a decision, and *deliberate* and *rapid* planning as complementary methods utilized in differing timeframes. Articulating a plan as *tightly* or *loosely coupled* delineates plans requiring more or less synchronization or integration.⁸ The breadth of mobilisation planning requires action and therefore plans at each of the levels outlined in MCDP 5.

The complexity, uncertainty, and time-horizon of mobilisation planning require consideration of elements of all three modes – commitment, contingency, and orientation. Specifically, mobilisation planning bridges the gap between deliberate, peacetime planning and rapid, execution planning. This requirement compels simplicity in planning and clear understanding. Participatory planning including the “open sharing of information throughout the organization” provides the benefits of review and rehearsal at all levels and enhances the fluid transition between decision and execution planning. Mobilisation planning requires not only

detailed planning related to the physical requirements of mobilisation, but also substantial and “tightly coupled” input to capability development plans, demonstrating the interwoven nature of mobilisation and preparedness.⁹ Adopting a conceptual explanation of planning such as in MCDP 5 would complement the existing MAP and FIC analysis and improve Australian Army planning doctrine. It would also equip the Army with the necessary tools to cope with the adaptations required to anticipate future warfare. Making this recommendation obliges a review of the ADF doctrinal framework.

Australian Defence Force Doctrine Framework

Doctrine lives in a delicately balanced domain between conservative adaption and preservation of bloodied and battle proven knowledge. It “reflects the judgements...about what is and is not militarily possible and necessary.”¹⁰ Although authoritative, the application of doctrine is challengeable and requires judgement.¹¹ To be effective, doctrine must cover all aspects of military operations at the relevant level of the target audience. To achieve this, the Army classifies doctrine as either philosophical, application, or procedural as depicted in figure 3.

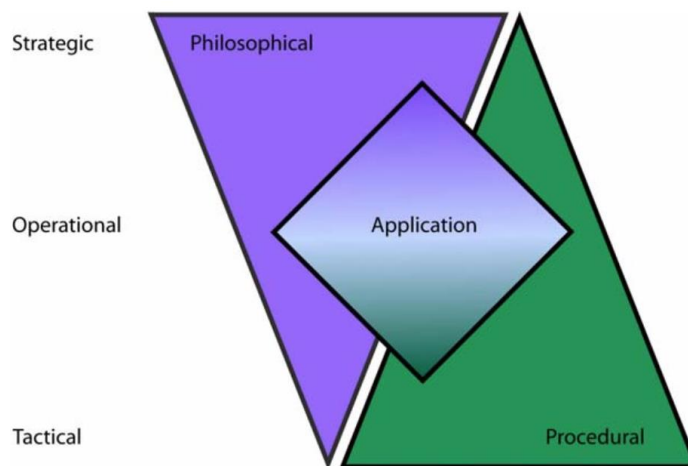


Figure 3-2: Levels of war and doctrine

Figure 3. Interaction between Levels of War and Doctrine

Source: ADF ADDP-D

Broadly, the Australian Army has clear philosophical level doctrine, but can improve the content and connections between application and procedural levels. Philosophical doctrine explains fundamental principles for the employment of the military. It aims to “shape the trained mind.”

Considerations, concepts, and theory are the elements of this doctrine. Application doctrine operationalizes the philosophical doctrine and aims to “train the mind.” Processes and tools to enable individual and collective training are the realm of this doctrine. Lastly, procedural doctrine, akin to Tactics, Techniques, and Procedures (TTPs,) is definitive by nature in order to ensure interoperability and to meet its aim of “train(ing) the body.”¹² Completeness and integration between these tiers ensures relevance to the target audience.

The relevance of procedural doctrine is determined by its feasibility and by its relationship to application and philosophical doctrine. Procedural doctrine should therefore be the most adaptable, and is the area where Australian doctrine is most lacking, or is inconsistently connected. The development of extensive Standard Operating Procedures (SOP) attempts to fill the gap presented by this doctrine, but is inconsistently applied across the force. Exemplar models for detailed level doctrine are provided in legacy Army doctrine, and in US and UK doctrine that outline considerations, but also includes recommended, consistent methods.¹³ A specific example of shortfalls in Australian Army procedural doctrine is the removal of this documented approach from Infantry doctrine. While encouraging flair and creativity, the absence of procedural doctrine does not enhance training or combined arms coordination. Mobilisation doctrine reveals a similar shortfall where the conceptual doctrine is not supported at the application or procedural level. These doctrinal weaknesses can be mitigated in a small, standing, professional military, but will be magnified where the Army is required to mobilise by expansion.

Australian Defence Force Mobilisation Doctrine

The Australian Army doctrine for mobilisation is a singular and purely philosophical document, *Australian Defence Doctrine Publication Preparedness and Mobilisation* (ADDP 00.2.) This doctrine articulates the process for connecting national and military strategic direction, culminating in Defence and Army Preparedness Directives.¹⁴ It is important to acknowledge that the subordinate levels of mobilisation planning and doctrine may exist within the *Defence*

Preparedness Management System (DPMS), but this system is inaccessible for critique or review by the majority of the Army.

Mobilisation receives scant attention in ADDP 00.2, which simply outlines the stages of mobilisation and the distinction between “surge” and “expansion”. Surge is defined as the immediate response to a short-notice requirement, likely to be achieved from within existing Defence resources. Expansion is the increase of Defence capability by scale or scope. ADDP 00.2 identifies four stages of mobilisation, where surge is relevant for the first two stages, and expansion is an anticipated requirement for the last two:¹⁵

- Stage One: Selective Defence mobilisation
- Stage Two: Partial Defence mobilisation
- Stage Three: Defence mobilisation
- Stage Four: National mobilisation

Stage one mobilisation is simply the transition of prepared forces for operations. The Army’s operational record of the last decade indicates that this stage presents no significant challenges. Stage two is the first area of friction for the Army’s ability to mobilise, where significant elements of the reserve force and the employment of contract support are both likely. Stage three mobilisation requires the indefinite sustainment of the entire ADF at an Operation Level Of Capability (OLOC), for which the last example of the Vietnam conflict triggered the requirement for conscription. This level of mobilisation requires prior consideration and actions to enable the force to be mobilised, while retaining sufficient capability to train and develop follow on forces. Stage four involves the priority commitment of national resources. Military mobilisation in stage four includes the potential for compulsory service and indefinite expansion.

Except for the philosophical doctrine, the ADF mobilisation framework is one of classified policy, procedure, and direction, with no application or procedural level doctrine to codify strategic direction. MCDP 5 articulates that “As a rule, any commander affected by a plan should have the opportunity to contribute to it.”¹⁶ In the Australian Army, this opportunity is denied by the absence of supporting doctrine and the classified nature of mobilisation planning. The inaccessibility of

supporting mobilisation doctrine and plans ensures operational security but impedes familiarization and rehearsal. It prevents critique and continual updating of these plans, therefore allowing mobilisation planning to become ossified, a relic of the era of quantitative expansion, rather than serving as a blueprint for qualitative expansion. The as yet unreleased *Defence Preparedness Manual* could fill this doctrinal gap and enable the conduct of functional and detailed level mobilisation planning.

History of Australian Military Mobilisation

The absence of an overt military culture or credible threat restricts Australia's inclination to prepare for mobilisation. With the exception of Japanese offensive actions during WWII, Australia has never faced a strategic threat to its sovereign borders. The security that stems from this isolation pervades Australian culture and influences Australia's enduring strategic deterrence posture.¹⁷ The popular aversion to a historical image of mobilisation and general disinclination towards conflict has shaped the Australian approach to mobilisation. Recent experience in limited warfare, characterized by relatively low casualty rates and impacts on society, further separates the Australian populace from military affairs. The consequences of this limited approach to peacetime preparation are revealed at the outset of war:

The Army commenced both World Wars fundamentally unprepared. In neither case was the Army adequately prepared for the nature of the conflict or the scale of its commitment. It therefore commenced each war deficient in doctrine, equipment and trained manpower...The cost paid for this inadequate preparation was paid for in Australian lives and reduced national security. It included the defeat and capture of the 8th Division, the loss of Singapore, the bombing of Darwin and the epic struggle of Kokoda.¹⁸

The history of mobilising Australian military forces can be distinguished in three phases, a comprehensive description of which is provided in appendix A of this paper. Prior to WWII, mobilisation relied upon expansion of the regular force by volunteers, with training either conducted domestically, during lengthy sea travel, or in overseas staging areas. Universal service was also approved, but only for domestic service. Although technological developments throughout the interwar period increased the training burden for the expanded force, WWII largely reflected the same approach, except legislation was amended to allow universal service in the Pacific region. The

enduring employment of the Australian Regular Army since WWII has been in dual roles of high readiness expeditionary forces and as an expansion base cadre. Major combat operations in Korea and Vietnam exemplified the challenges of mobilising forces beyond the standing capability of the Army, a task that the ADF has not had to undertake since Vietnam.

The lead-up to the Korean War was Australia's most significant post war attempt at national mobilisation. However, it was in response to the growing threat of global war posed by the spread of communism, rather than the Korean War itself that Australia's longest serving Prime Minister Robert Menzies issued a "call for the nation to prepare for war within three years."¹⁹ Concurrent mobilisation of National Servicemen while the Regular Army maintained operational commitments in Korea was the first example of the challenges of contemporary military modernization in periods of reduced strategic warning time. The period encompassing the Cold-War threat and the Korean War reality of 1950-53 saw the Australian military population triple, Defence expenditure quadruple, including investment in naval and air capital resources, and significant resource stockpiling occur. This drastic escalation did not result in increased military capability, and was deemed excessive for the economic capability of the nation.²⁰

Over the last decade the ADF has focused on readiness, rather than surge or expansion requirements of mobilisation. Readiness shortfalls identified in *Operation Morris Dance*, a non-combatant evacuation operation in Fiji in 1987, were magnified during the 1999 Australian-led, International Force East Timor (INTERFET) operation and led to a renewed strategic focus on readiness.²¹ This strategic focus complemented existing operational and tactical readiness capabilities that had enabled the conduct of deliberate and contingency operations since the Vietnam conflict.²² This approach has met the challenges of limited conflict commitments. However, it is insufficient to generate a force of credible scale and caliber for winning in major conflict. The base force is defined more by resource limitations than by the requirement to expand capability.

The fiscal burden of maintaining military capability at or above the realistic expectation of its employment is prohibitive and therefore unrealistic. While Australia's enduring social, political, and economic conditions do not support a larger or conscripted Army, strategic direction necessitates a strong, responsive, and agile Army.²³ A component to solving this impasse is mobilisation planning for surge and expansion. Such planning must be codified in doctrine, and integrated to the organizational mindset and operational concept. Specifically what such planning would entail, however, requires careful analysis, both historical and contemporary.

Historical Mobilisation Lessons and Contemporary Research

The ADF can learn from other nations' historical experiences and contemporary research to develop an understanding of 21st century mobilisation requirements, cautiously avoiding replication or imitation. The majority of mobilisation research falls into three categories: industrial and economic preparation for major conflicts such as WWI and II, post-Vietnam research on mobilizing all-volunteer forces, and current research into social, economic, industrial, and cyber mobilisation. The ADF must consider each of these to fill the striking literature gap pertaining to planning for a modern, 21st century volunteer force that can keep pace with the latest technological considerations—including, but not limited to, cyber.

The ADF can learn from the detailed mobilisation preparations of the US Army prior to WWII, despite the vast disparity in the scale of industrial and personnel capacity. The US War Department study, *The Army and Economic Mobilization* articulates the challenges of creating unified control systems for industrial capability, along with the planning methods for facility construction and transfer of civilian capacity towards a war effort.²⁴ A recent Leavenworth study by Brian C. North reviews the 1944 US Army in Europe, including the role of domestic education facilities in the mobilisation effort.²⁵ Likewise, the US Marine Corps mobilisation for WWII and Korea demonstrates that “the nation's ability to wage war is directly related to the strength, character, and flexibility of its mobilization base.”²⁶ The ADF will benefit from these considerations, along with continued research into the role of the all-volunteer force.

The enduring forms of expansion-based mobilisation for most militaries is through the development of reserve forces and by conscription. In reviewing the role of selective service in the US All Volunteer Force (AVF), Bryan Rozman determines that the value of conscription is nebulous due to “evolved standards of performance” beyond the capacity of a conscripted force to learn in “strategically relevant time.” He further contends that the qualitative skills of modern service invalidate the traditional conscription of “relatively unskilled labor.” Rozman reviews US 20th century mobilisation to conclude that “reliance on the reserve components to quickly mobilize was just as efficient as expanding the active force through conscription.”²⁷

The Australian Army Reserve is an essential component of the mobilised all volunteer force. The decision to integrate the Australian Army Reserve for operational deployments in 2000 was a substantial policy shift from its previous role as the Australian Army’s strategic reserve. Although Australia does not employ a National Guard equivalent, a study by Major Franklin L. Jones depicts enduring challenges after the 9/11 attacks, when the National Guard moved from a strategic reserve force to an “operationalized,” integrated force. These challenges include maintaining capability with degraded equipment holdings, integrating with the operational force in the absence of a defined operation or cause, and avoiding potential relegation “out of America’s operational force composition.”²⁸ Regardless of an enhanced role or capability, the Australian Army cannot wholly rely on the Army Reserve as the panacea to the challenges of mobilisation.

The ADF must engage with current research into social, economic, industrial, and cyber mobilisation, balanced with the historical lessons of major conflict. A more significant deviation from a traditional mobilisation concept is outlined in a *Modern War Institute* paper that considers mass mobilisation through social media platforms, equipping through additive printing technology, and online training methods.²⁹ These emerging and diverse elements do not provide a holistic solution to the challenges of mobilisation, but can contribute to relevant and robust planning.

Contemporary research and developments should be considered alongside historical experiences of mobilisation. The first historical appendix to this paper outlines the Australian

mobilisation experience, demonstrating the social, financial, political and military influence on the ADF's approach to mobilisation. From the vast examples of mobilisation, two further historical examples are provided: Appendix B outlines the German interwar development of the *Reichswehr*, and appendix C illustrates French mobilisation plans for WWII. While these examples do not provide solutions to mobilisation challenges, they highlight the importance of relevant training, doctrine, and personnel policies to enable mobilisation for future conflict.

The effectiveness of *Reichswehr* planning and doctrine in a military constrained by the Treaty of Versailles provides insight to the importance of flexibility, leadership, and the development of effective doctrine. The German system acknowledged its economic limitations and sought innovative education and training methods within an all-volunteer force. The hallmarks of a demanding education and decentralized command are essential components of the *Reichswehr* that are relevant to ADF mobilisation for future war. The French Army similarly benefitted from a planned mobilisation system, but suffered from inappropriate strategic and tactical doctrine and a reliance on an ill-trained expansion force.

French methodical battle doctrine and manpower policy proved deleterious to readiness. As Robert A. Doughty notes, "Highly trained and cohesive units ready to fight immediately simply did not exist when the French Army mobilized for war."³⁰ This is likely to be the situation if the ADF is required to expand in a timeframe dictated by external threats, rather than political choice. The gradual reduction of the standing army to a "skeleton" reflects the enduring challenges faced by the ADF and most militaries.³¹ The ADF can learn from the French example by ensuring that its doctrine is not only robust, but also derived from perceived threats, rather than from economic feasibility.

The historical examples and contemporary research outlined above highlight the complexity of planning and preparing for mobilisation; however, rather than providing ready-made solutions, they serve to encourage debate and generate inquiry. The most important insight to be derived from this approach is not the method, but the purpose or intent behind mobilisation. The Germans were

economically and legally restrained, but benefitted from having a known enemy. They used mobilisation to generate overwhelming tempo against the French in WWII. The purpose of mobilisation was to concentrate effort and avoid protracted conflict. The French similarly benefitted from a known enemy, however failed to link their concept of warfare with both their society, and the tempo of future warfare. The US experience in WWII demonstrated the importance of planning, but not necessarily the plan itself. The “M Day” concept was never enacted as planned in the *Industrial Mobilization Plan* or the *Protective Mobilization Plan*.³² The planning effort did however deliver a flexible baseline understanding between government, military, and industry that enabled the war production effort for the purpose of the *Lend-Lease* program, and later for the American military.³³ These examples broaden Australia’s limited mobilisation experience, as does examining why conflict that warrants expansionary mobilisation could occur.

The emergence of cyber warfare, the increased globalization of the world economy, climate change, poverty, refugee movement, and the reduction of traditional manufacturing capacity in the developed world all contribute to an understanding of why conflict could occur. They should therefore be considered in the development of mobilisation plans. Australia’s isolation and the absence of a direct or enduring threat require an ardent approach to understanding and communicating why the ADF, and possibly wider Australian society, could need to mobilise. Integral to this vision is understanding Australia’s role as an independent nation, but also as an enduring alliance partner to the United States and other allies. Planning for war is not identical to desiring it, but it remains the responsibility of the ADF to engage the Australian Government in preparation for “black swan” events. Understanding, or at least envisaging the possibility of future warfare is essential prior to engaging industry, and other government departments in furthering a comprehensive approach to mobilisation.

Relevance of Mobilisation in Preparation for Future Warfare

Visualization and preparation in times of peace affect the military's ability to mobilise for future warfare. Future war theory, tempered by the realities of current and historical experience, enables an image of future war. This idea of future war should then design the mobilisation concept, which in turn drives functional and detailed planning. This neat formula nevertheless presents a central problem; for, as Colin Gray attests, there is no "foreseeable future."³⁴ Inaction is not a sufficient response to ambiguity. Militaries therefore need to act cautiously and responsibly to mitigate the uncertainty of future conflict. The first step towards refining the mobilization capacity of the Australian Army is therefore a credible, adaptable concept of future warfare.

The *Australian Army 2014 Future Warfare Report* conceptualizes the character of future conflict as crowded, connected, lethal, collective, and constrained, and within these terms, the report explains the themes of future conflict to 2035. The key theme is that integrated, joint effects, informed by decision superiority tools, combine to provide "rapid overmatching power at decisive points." While not directly referring to mobilisation, the report explores societal expectations of the military, demographic and skills challenges to recruitment, and the effects of hollowness on capability maintenance and mobilisation.³⁵

Colin Gray describes the inevitable recurrence of warfare, the likelihood of irregular warfare between state and non-state actors, and the enduring nature of warfare as political, cultural, and social. He deduces that "warfare reflects the communities that wage it" and that "the history of war is not primarily the history of weaponry; rather it is the history of the person who wields the weapon." These deductions are relevant to mobilisation as they reinforce the permanent linkage of society and warfare in an era of primarily volunteer militaries. For a society to wage war, offensively or defensively, the society must have the will and capacity to do so. As society changes, so must the tools of war. Gray contends that technology is not the panacea to improving these tools of war and that "training, morale, organisation, doctrine and quality of leadership" are more important.³⁶

Jim Storr describes the role of history in informing, not predicting future conflict and warns of the tendency for militaries to commence a conflict in the same manner, or using the same techniques with which they fought the last.³⁷ He cites a study of 158 land campaigns conducted from 1914 onward to contend that successful ground combat forces “can conduct aggressive ground reconnaissance, and exploit the opportunities that creates:” Storr expands:

They should be organised and trained around tactics of shock and surprise. They should be able to apply fire flexibly and transiently in order to enable penetration, manoeuvre and disruption. They should be very flexible and responsive: that is, they should be able to decide and act very quickly. They should be especially responsive to low-level opportunities, require only a minimum of orders and hold internal reserves of combat power.³⁸

Here, Storr predicts crucial characteristics of a future force, based upon historical evidence. These characteristics, in turn, inform the capability, equipment, personnel, and training requirements. Relevant to mobilisation is the ability to recruit, train, and maintain a force with these characteristics in peacetime, during a surge, or during an expansion period.

Russian military operations in Ukraine are a rare contemporary example of state on state conflict that can provide an insight into war in the near future. The Russian campaign demonstrates the dual employment of technology and information operations alongside conventional means of conflict. In observations from the Russo-Ukrainian War, Dr. Phillip A. Karber outlines lessons observed of relevance to modern conflict. Karber observes the conduct of major central battles, and the employment of proxy, or irregular forces. He contrasts the declining survivability of light infantry vehicles amidst the resurgence of armor and increased lethality of fires. His identification of the “ubiquitous presence of UAV” is testimony to the emergence of this capability, but not necessarily its enduring supremacy. Although the capabilities and conduct of warfare are relevant to mobilisation, Karber also observes the deterrent effect of Ukraine’s rapid mobilisation of the entirety of its fifteen Brigades to the Russian border. He concludes that the pace, rather than the extent of the mobilization, was a credible deterrent to Russia enacting an invasion plan.³⁹

While the character and frequency of future warfare are unknown, the imperative to prepare for it remains. To prepare for the conduct of warfare beyond the near term, militaries are best to

understand the conduct of previous conflict and remain abreast of global technological and social changes, taking steps to incorporate these into preparations for mobilisation. Future conflict will share characteristics with past conflict as war is essentially a human activity. Future war will be discernable by its decentralized nature, and the increased skills and knowledge required of soldiers and officers as a result of advances in technology and maneuver warfare. Skill requirements and limited or negligible growth in the size of the regular army will each influence mobilisation for future war. The demand for the Australian Army to surge or expand is enduring, possible, and even probable. The Army must seize the moment to modernize its planning and doctrine for mobilisation in an era that emphasizes technological skill rather than demographic mass.

PART II: SPECIFIC RECOMMENDATIONS TO ENHANCE MOBILISATION

Increasing the integration of mobilisation planning in the Australian Army has a broad remit. While not ignoring other areas of capability, a focus on doctrine, personnel policy, and training provides a refined view of the proposed adaptations to the mobilisation methodology. More importantly, these human elements of the system demonstrate the importance of the qualitative characteristics of future warfighters.

Personnel

Mobilisation is more than manpower, but the mobilisation of people remains pivotal. Future warfare will remain a human activity regardless of any increase or dominance in technology. Combined with the anticipation of mobilisation through expansion at some future stage, there is an imperative for mobilisation to be a central tenet in the design of personnel policy. Examples of how this influence might be realized include community engagement, recruitment and retention in an increasingly technical domain, and in determining the balance between regular and reserve military, public service, and contracted employees.

Developing and maintaining links with the society from which the Army is drawn is pivotal. It ensures popular support and encourages the societal inclination to serve. In his analysis of German mobilisation for WW1, Richard Bessel writes, “Mobilization implies sacrifice, and government attempts to mobilize the population is as much to generate support for future sacrifice.”⁴⁰ The Australian Army community engagement efforts utilize social media, public affairs, and locally derived and delivered activities in areas of major military installations to achieve this support base. To increase these efforts, the Army should look to re-energizing the Australian Army Cadet (AAC) youth development program. The AAC program can be bolstered by increasing funding and governance support, and by establishing partnership bonds between regular, reserve, and cadet units. In particular, by providing technical expertise in adventure training, the Australian Army can assist the AAC in developing resilience in the program participants, either as a base-line for future service in case of mobilisation, or simply for the benefit of an ever-changing society.

Demographic trends must be considered for their impact on mobilisation by expansion.

Relevant workforce and demographic changes include an ageing population, decreased education standards, and a competitive employment market. Australia's age demographic forecasts an increased ratio of "older to younger people" but consistency in the size of the target recruitment age of 18-25 until 2050.⁴¹ Defence Force Recruiting (DFR) strategic planning acknowledges increased competition in the established recruiting demographic, leading to increasing the representation of women and indigenous people. It observes the increased competition for Science, Technology, Engineering and Mathematics (STEM) skilled candidates, a challenge in light of expectations for the "consistent but subtle increase in technological complexity of future (military) capabilities."⁴²

The increased technological requirements for soldiering and demographic predictions present challenges for stage three and four mobilisation. Functional level workforce planning should consider Army-sponsored STEM development programs and modifying service requirements for specialist trades. A STEM development program, in partnership between the Defence Science and Technology Organization (DSTO), Defence Force Recruiting (DFR), and a future Australian Army cyber capability, would provide the basis for capability development and recruitment. If established it could also provide a professional link between cyber practitioners and the military that could be leveraged for mobilisation. Recruiting and retaining these specialist personnel may challenge conventional models of military service.

If the Australian Army is to maximize its human capital, then it is imperative to define the essential characteristics and traits for military service in cyber roles. Defining the requirements of soldiers whose roles can be conducted away from the battlefield is a crucial step that may result in significant deviations from the traditional requirements of service. Tailored conditions of service are currently provided for critical and specialist trades such as specialist health personnel. As cyber capabilities progress at a faster rate than the Army's ability to acquire them, a similar approach is needed. Health of service personnel is essential, however, if the service wants to attract qualified and capable people to these new roles, fitness standards may need to vary. The Army Physical

Employment Specifications Assessment (PESA) framework caters for this by defining fitness requirements by employment category. The development of an auxiliary command would enable growth of the ADF's organic cyber capabilities as well as their potential for expansion during mobilisation. Models for this are the British Navy Royal Fleet Auxiliary (RFA) and US Military Sealift Command (MSC), where specialist naval capabilities are employed in support of military operations, but without military conditions of service.

The mobilisation of the Army Reserve is a credible mobilisation option that can be further improved. While the ADF re-defined the role of the Army Reserve from an expansion base to a source of "fully trained personnel to support all the Army's operational tasks," this is only generated by the active reserve.⁴³ Smith and Palazzo contend that "the Army Reserve is therefore critical for the future force generation... either reinforcing regular ground combat forces or providing a substantive part of the combat and general-purpose forces for subsequent force rotations."⁴⁴ A credible option is to review the ability to recall previous serving, active or inactive reservists to the regular force during the surge phase of mobilisation. The ADF can capitalize on the development of the Total Workforce Model (TWM) to access this manpower resource.

The TWM softens the stark delineation between regular and reserve service by creating a continuum of Service Categories (SERVCAT.) This model supports surge and expansion methods of mobilisation by retaining trained personnel and providing flexible service options for recruitment. It provides a "pool (to) continue to support Defence needs for trained manpower as required during expansions."⁴⁵ Further refinements to the model could include the re-introduction of Special Conditions Units. These Army Reserve units aim to retain members who are unable to commit to regular attendance, instead committing to two block periods of service per year. This example of refinement to the TWM provides an opportunity to maintain greater forces in the active reserve, and therefore the ability to mobilise a larger, more capable force in a shorter period.

The Australian Defence Organisation (ADO) encompasses uniformed members of the ADF and civilian members of the Australian Public Service (APS.) APS staff are primarily employed in

governance, support, and administrative roles. The Army should reconsider the use of contractor and APS staff based on what positions *should* be done, rather than what jobs *can* be done by civilians.⁴⁶ Accepting that the initial waves of military commitments will need to be generated from within the service, and that the service is resource constrained, alternative and rapid forms of expansion mobilisation are required. While “civilianization” has been blamed for the hollowness of the existing force, the selective employment of APS staff within line units can enhance mobilisation. An example is the corporate governance and administrative demands upon Battalion Executive Officers (XO) which detract from the traditional employment as the Unit Second-in-Command. Creation of an APS Governance Manager position in units would enhance mobilisation by re-establishing unit XOs as readily deployable positions. Similarly, contractor support can enhance mobilisation.

ADF training institutions are primarily staffed by military instructors. During mobilisation of a limited size army, it is probable that these military personnel will be required for the conduct of initial waves of deployments. As a functional planning example, the US Army closed its Staff and War Colleges in 1940, returning students to the operating forces, and allocating staff to expansion tasks such as doctrine development and short course instruction.⁴⁷ While not appropriate for all fields of training and education, the employment of contracted instructors in some military fields can enable the surge of regular military personnel. Over the past decade the US has employed military contractor instructors in this role, both domestically and at forward staging bases. This presents another outcome of functional and detailed planning that can occur before conflict, enabling rapid enactment of surge, and later expansion by mobilisation.

Training and Education:

Training and education is the second area to be examined in light of mobilisation planning. Continuing the theme of contributing to the qualitative requirements of mobilisation, the following recommendations outline both functional and detailed level planning considerations. These include

contingency planning of training requirements, force protection of mobilisation facilities, and training methods that enable rapid acquisition of skills.

Training for modern and future combat is increasingly time consuming, but can be partly mitigated by deliberate contingency planning prior to surge and expansion mobilisation. Surge and expansion have different requirements, and each must be considered in creating a progressive training system. Critical path analysis is a tool that can assist planners to define the minimum requirements at each stage of training and therefore enable the rapid increase in personnel that is essential for expansion. Functional level planners should develop mobilisation training plans that document the differences between steady-state, surge, and expansion training. Implicit here is acceptance of reduced capability from a reserve based surge or civilian based expansion force; soldiers “cannot be mass-produced in a few weeks of basic training...good soldiers, like good wine, take time to mature.”⁴⁸

Good soldiers are the result of good training and although Registered Training Organization (RTO) compliance has been an integral component of the current model, the Army should reconsider its role during mobilisation. A study on the Army training and education framework, *The Ryan Review*, identified the need for change in Army’s training, education, and doctrine toward a more comprehensive system. It specifically challenges RTO compliance. Perceived individual and collective skill degradation has been attributed to a focus on competency and proficiency standards at the expense of professional mastery. This common claim undervalues the quality control, procedural and retention benefits of RTO compliance. Nevertheless, there is merit in considering the impact of complying with these requirements during an expansion mobilisation. *The Ryan Review* also challenges the role of the all corps officer and soldier training continuums, demonstrating a willingness to review content and delivery methods.⁴⁹

Proposed changes to the content and delivery method of All Corps training courses can enable expansion based mobilisation. These courses are designed to train personnel one and two levels higher than their current positions, as in the German Army *Führerheer* concept. The US

mobilisation for WWII exemplifies the importance of this approach. As Brian C. North notes, “None of the United States Army’s senior leaders had any experience leading large units before mobilisation – the vast majority of future division commanders were captains, majors, and lieutenant colonels in 1939.”⁵⁰ It is imperative to retain this approach to training. Creation of a modular and reduced duration course for training during expansion must accept risk in administrative knowledge, instead emphasizing leadership and planning skills. The *Ryan Review* also considered the balance between in-residence and distance education. While increasing distance education can benefit the standing army, it also provides a low signature training system to mobilise forces without alerting an adversary.

Functional mobilisation planning should consider the possible force protection implications of the current disposition of Army bases predominantly in coastal regions near large population centers. Australia’s mobilisation of personnel for previous conflicts has required the establishment of temporary and often remote facilities in regions deemed outside of enemy interference. The reach of precision guided missiles and the pervasiveness of cyber warfare negates the ability to mass training forces in the same manner. Although the colossal US facility construction program for WWII had a “crucial, if not decisive impact on the outcome of the war,” a comprehensive facility construction program to enable mobilisation is unrealistic for a nation enjoying enduring peace.⁵¹ However, innovative functional mobilisation planning can identify opportunities for acquisitions, facilities expansion plans, and dual or contingency use facilities such as abandoned industrial facilities.

Approaching training design from a mobilisation perspective can enhance current training in addition to enhancing expansion or surge capability. Improving technological aids to training is an example. The Army has invested in simulation training primarily as a cost saving measure and has remained behind the trend of commercial capabilities and emerging technology. The benefits of current and future simulation technology to mobilisation are evident in the ability to train remotely, with minimal signature, and expense. Existing technology such as virtual reality enhance capability

in a force that does not enjoy years of progressive training prior to major conflict. The rapid acquisition of skills, regardless of its technological prowess is also relevant for mobilisation. Examples include training with airsoft weapons, or simmunition ammunition. These methods are economical in time and effective in training quality.

Doctrine

The exploration of planning theory, doctrine, and the ADF mobilisation framework at the outset of this paper included general developmental recommendations. These recommendations included the incorporation of a holistic planning methodology and the generic improvement of application and procedural level doctrine. This final section outlines specific recommendations for improvements to doctrine that will enhance mobilisation. These recommendations include improvements to the completeness of mobilisation doctrine, and more broadly, improving the accessibility of doctrine and the resourcing of doctrine development.

Restricting mobilisation doctrine to the philosophical level weakens its relevance, influence, and feasibility. While the philosophical doctrine provides guidance, there is no practical or relevant accessible guide to application. This shortfall should be remediated with classified, but accessible doctrine. At the application level, the finalization of *Defence Preparedness Manual – DEFPREPMAN* meets this need. DEFPREPMAN would enable the development of procedural doctrine to articulate the mobilisation roles, tasks and purposes within each major command. This procedural doctrine would provide the guidance necessary to delineate the roles of a Combat Brigade, from that of a Training Command formation at each stage of the Force Generation Cycle (FGC.)

Inadequate access to Army doctrine is a restriction that will influence the proposed development of mobilisation, and all doctrine. There is an institutionalized gap in the understanding and application of doctrine between the period of initial training and the time that a soldier assumes an instructional role. This gap is repeatedly identified during externally observed exercises by a failure to first identify the doctrine before knowingly deviating from it. While there are many

aspects to ensuring the dissemination and understanding of doctrine, an essential feature is accessibility. Replicating a societal trend, the Army has transitioned towards paperless environments, which has reduced the accessibility of doctrine to junior members whose workplace is rarely defined by an office or ease of access to Information Technology (IT). Ominously, this knowledge gap is at the core of future disaggregated, dispersed, small team leadership. The discontinuity at this level diminishes the application of doctrine, regardless of its quality or relevance.

To mitigate this trend, novel approaches to the availability of doctrine should acknowledge the importance of accessibility and the classified nature of some doctrine. IT projects that have provided mobile devices to instructors and assessors should be enhanced. This will ensure that doctrine is accessible, whether the workplace is a remote airstrip, a trench, or a command post. To prove effective, this would require a substantial IT investment, which could also remedy personnel administration shortfalls. A second recommendation is investing in a security infrastructure that permits the use of personal devices for classified material. An exemplar utilized within the US military is Google Apps for Government (GAFG,) where with the addition of basic software, personal devices can store certain levels of classified documentation. This system could be leveraged for the same dual benefits of doctrine accessibility and personnel administration.

Technology can also enhance the accessibility of doctrine by enriching the presentation of doctrine. Conventional doctrine, restricted by the printing press, relies upon text and images to convey intent. This method can provide clarity, but can also be verbose and miss the context of the concept being described. This is particularly relevant in detailed doctrine. Technology that has been utilized to enhance training such as video, interactive, or virtual reality technology can also enhance doctrine.

Lastly, the resourcing of doctrine development is a challenge that requires enduring investment. This challenge has increased during the heightened operational tempo period and an urgent investment of relevant experience in the Land Doctrine Centre capacity is needed. The

primary criteria for this human investment is the capability to generate doctrine, a skill which is not widespread throughout the organization. To capture and codify Army doctrine at the three identified levels it is recommended that doctrine development is a cradle to grave tasking for selected personnel, rather than a secondary role. This will likely require an increase to contractor support or reserve personnel on extended contracts.

The trade-off for removing doctrine development from the direct input of the operating forces is the chance of irrelevance. Training institutions and operating forces are the primary users of Army doctrine. The cumbersome Army lessons learnt process is weighted towards operational experiences and the annual Brigade certifying exercise. The training institutions, Unit, and sub-unit level have repeated exposure and experience, but have limited capacity for capturing these lessons. To alleviate this, it is recommended that an increased development function be established at unit level. This development (S8) role, established at Unit (Battalion equivalent) level can form a conduit to existing under-resourced doctrine development, capability development, and modernization programs at Army and Forces Command Headquarters. The development of the TWM within the Army provides human resource options for the development of these positions without exceeding the personnel restrictions of the Approved Force Structure (AFS.)⁵²

CONCLUSION

The responsibility for maintaining Australia's defence capability in peacetime will continue to be borne by a small proportion of the population, and as with previous conflicts, this nucleus group will form the expansion base for major war. Australia's lack of military culture, aversion to conscription, and the increased professional requirements of the military will mandate that both groups are formed by volunteers. The challenges of future warfare will not change warfare, but will change the tools, skills, and techniques involved, therefore influencing the conventional quantitative mobilisation models.

To adapt to the requirements of mobilisation for future warfare, Army senior leaders must re-energize mobilisation planning efforts. Integrated planning is essential, for which the

USMC model of conceptual, functional, and detailed planning is recommended. In addition to the classified components, the outcomes of this planning should be recorded in accessible doctrine at the application and procedural levels to complement the existing philosophical doctrine. Crucially, the publication of such doctrine and planning allows critique, rehearsal, and improvement.

Secondly, the Army should provide more emphasis on mobilisation as a criterion when developing personnel policies. This includes activities such as community engagement and supporting youth groups such as the AAC. Established policies must evolve to develop a workforce that can capitalize on skills such as cyber and STEM. Mobilisation planning should exploit the integration of reserves through the TWM, and should also consider the role of civilian contractors within military training institutions.

Lastly, when developing training systems and methods, the Army should remain cognizant of the mobilisation requirements of modern and future warfighting. These systems must define the requirements and acceptance of risk when training an expansion force, and consider the implications of RTO compliance during mobilisation. The standing army can also benefit from mobilisation planning, with the identification of alternative training facilities and training systems designed for rapid skills acquisition.

The Army must seize the moment to modernize its planning and doctrine for mobilisation in an era of emphasis on technological skill rather than demographic mass. Essential to maximizing this opportunity is the articulation of functional and detailed plans to fulfill the Army's dual role as the nation's response force, and as an expansion base for sustained operations. A failure to consider mobilisation at this time could lead to repetition of the "hollowness" of the 1980-90's, where the Army was incapable of sustained operations.⁵³ The recommendations made in this paper, adopted individually, may improve specific areas of military capability. If adopted holistically and conceptually, they can improve Australian defence capability, and thus deterrence, by facilitating deliberate mobilisation planning for a Black Swan event.

APPENDIX A: AUSTRALIAN ARMY MOBILISATION FROM WORLD WAR ONE ONWARD

Australia's history of mobilisation for conflict can be bracketed in three phases. The first phase included campaigns in the Boer Republic, New Zealand and World War One (WWI.) In the case of WWI, the Citizens Military Forces (CMF), comprised land and maritime services. While Universal Service in the CMF was legislated from 1911-29 for all males 18-60, there was no obligation for overseas service.⁵⁴ Two referenda proposing conscription failed during WWI.⁵⁵ The legislative barriers which restricted the CMF to domestic service therefore created the requirement for the expeditionary Australian Imperial Forces (AIF). Although many of the AIF were simply transfers from the CMF, these newly formed forces required comprehensive training as part of mobilisation. Fortunately, Australia's geographic separation, the duration of sea transport, and the Middle East training camps provided the opportunity to remedy training shortfalls of newly enlisted personnel. This period also established the relationship of the Australian Army and the society from which it was drawn:

It was and remains an ambiguous relationship. The Army is an institution of which Australians are openly proud but in which most would not aspire to serve. In peace, unlike Britain, it has not attracted into its ranks the nation's elites. Unlike the United States Army, it has never held significant economic and political power or influence.⁵⁶

Following the demobilisation of the AIF, Australia's military was largely dis-established, with a minimal regular cadre and a greatly reduced CMF.

The second phase was World War Two (WWII), where mobilisation repeated much of the pattern of WWI, with the forming of the Second AIF, again from volunteers and with the re-introduction of universal service. While no conscription referenda occurred, the service obligation of CMF soldiers 21 years or older was amended in 1943 to include service in the South-Western Pacific Zone (SWPZ), effectively including the conflict zones of Australia's archipelago Defence.⁵⁷ Recognizing the shortfalls of the minimal Defence force of the interwar period, following the demobilisation of the AIF, the Army was maintained by a small, professional regular and reserve cadre of approximately 70,000, who were to form the "nucleus" of an expanded capability as required.⁵⁸ At the conclusion of WWII, with the Army demobilizing, volunteers were called for service as part of the British Commonwealth Occupying Forces (BCOF) in Japan. These WWII veterans formed the basis of the current Australian Regular Army Infantry as the three original Battalions of the Royal Australian Regiment. They also constituted 1000 of the 4,470 strong Regular Brigade of the Permanent Military Force (PMF). The critically short strategic warning time for the Korean War, and the paucity of regular forces, required the Australian Government to end one conflict in order to commence another.

The third phase, includes the campaigns from 1946 to today. While this period includes a variety of operational commitments including Malaya, Borneo, Somalia, Timor-Leste, Afghanistan and Iraq, only Korea and Vietnam can be considered to have required expansion during mobilisation. In 1949 the Australian Army consisted of 19,000 regular and 50,000 reserve, or citizens' forces. In support of a British, Australian, and New-Zealand Defence contingency plan in Malaya and the Middle East, the Defence Committee committed to provide a ground force of three Infantry Divisions and an Armored Brigade. Maritime and Air components were equally large by comparison to the standing military size. In 1950, when called upon to support United Nations (UN) operations in Korea, Australia struggled to deploy a single capable Infantry Battalion, ultimately deploying the 3rd Battalion, Royal Australian Regiment directly from Japan to service during the breakout from the Pusan perimeter in Korea.⁵⁹

The situation as revealed by the Chiefs of Staff Committee on 26 July (1950) was lamentable. Not five years previously the Australian Army had been able to provide a force of over five divisions for active operations. In 1950, it experienced difficulty in providing a

single Battalion for operations. Neither of the two battalions in Australia, 1 RAR and 2 RAR, was even as ready for mobilisation as 3 RAR. Admittedly, the crisis had come suddenly – more suddenly than any direct threat to Australian territory could have arisen.⁶⁰

The lead-up to the Korean War was Australia's most significant post war attempt at national mobilisation. However, it was in response to the growing threat of global war posed by the spread of communism, rather than the Korean War itself that Australia's longest serving Prime Minister Robert Menzies "call for the nation to prepare for war within three years."⁶¹ Having committed the Australian military for service in Europe in WWII, Menzies, now in his second period of office, continued the legacy response of providing military capability in support of allied campaigns.⁶²

Replicating President Truman's call for American unity against a common threat, Menzies paired his political aims of Australian economic development with plans for war.⁶³ Australian economic development had been and remained contingent upon resources since Federation. However, the establishment of the National Security Resources Board (NSRB) in 1950 was the first time in Australian peacetime history that national resources were coordinated through a centralized government body, charged with national security.⁶⁴ Menzies contended that this level of control was required as mobilisation for a Third World War would not involve the "breathing space" for mobilisation that the two previous world wars had enjoyed.⁶⁵

The NSRB operated within the Office of the Prime Minister and enjoyed a wide-ranging agenda. Involved in food production, economic, manufacturing, defence, and responsible for integration with allied war-plans, the board held a pre-eminent role in mobilisation planning. For example, acknowledging the lack of scientific and specialist capabilities within Australia, the NSRB established a committee to establish a register of scientific specialists within Australia including a plan for their unique capabilities that could be called upon for "defence purposes."⁶⁶ The parallels to contemporary shortages of Science, Technology and Maths (STEM) or cyber qualified expertise is stark.

The provision of manpower was a key element in the cold war mobilisation plans. Fearing communist interruption to economic development, and therefore war readiness, the Australian Government established a committee to establish a labor reserve in case of striking workers in critical industries like the waterfront. Comprised of military and public service members, the committee was led by a military officer and the desire for the military to constitute this "reservoir of manpower" was clear.⁶⁷

Australia's first response to the outbreak of War on the Korean peninsula occurred one day following the notification. To the same region for which mobilisation plans had committed over five Australian Infantry Divisions, Australia immediately deployed an Air Force capability which had been long-requested. This contribution to a neighboring theatre would alleviate other allied contributions and provide extended deterrence and Defence of the Australian mainland.⁶⁸ A month later after a direct US request, Australia released the under-strength Infantry Battalion from BCOF for service in Korea on a volunteer only basis.

Concurrent mobilisation of National Servicemen while the Regular Army maintained operational commitments in Korea was the first example of the challenges of contemporary military modernization in periods of reduced strategic warning time. The National Service Scheme (NSS) was introduced in 1951 and continued until 1959. The scheme registered over 500,000 and trained 227,000 young adult males, requiring an initial period of approximately six months, followed by five years of reserve service.⁶⁹ National Servicemen could not be compelled for overseas service and were designed to fulfill domestic Defence responsibilities, enabling the small professional army to serve overseas such as was occurring with first one, then two Infantry Battalions deployed to Korea. Concurrently the Regular Army was required to train the CMF, although the concurrent challenges the Korean War precluded them from doing so adequately.⁷⁰

Further mobilisation constraints were demonstrated in 1951, when the US requested Australia deploy a complete Brigade to Korea, with the intention of continued presence after any cease-fire. The Korean War was, and remains, the “only large-scale, conventional war” fought by the Royal Australian Regiment (RAR.) It represented “significant growth for the Australian Army... (and for) a generation of young officers.”⁷¹ Although the Australian population had a wealth of WWII military experience, the character of the Korean War only six years later, presented unsurmountable challenges to mobilising Platoon and Company Commanders trained in what was viewed as a “new type of war.”⁷² The Australian commitment was therefore raised to only two Infantry Battalions from 1952, and even this mobilisation burden continued to retard the growth of the Australian Army for the following decade.⁷³ The period of Cold-War threat and Korean War reality of 1950-53 saw the Australian military population triple, defence expenditure quadruple, including investment in naval and air capital resources, and significant resource stockpiling. This drastic escalation did not result in increased military capability, and was deemed excessive for the economic capability of the nation.⁷⁴

The most contentious period of mobilisation, and the last period of National Service in Australia, was in preparation for the Vietnam War, again to bolster the minimal standing army. Australia’s strategic warning time for this conflict, as evidenced by the progressive mobilisation through national service, was counted in years, rather than the weeks as presented by the Korean War. In 1964, national service was amended to include overseas service and in 1965 the first of 15,381 national servicemen deployed to Vietnam. Widespread social opposition to conscription and the Vietnam war led to the disbanding of National Service in 1972.⁷⁵

Following Vietnam, the Defence of Australia (DoA) policy fiscally and operationally constrained the ADF throughout the 1980’s and 90’s. This policy restricted the Australian Army to “territorial defence in the north of Australia,” consigning the land force to a subordinate and limited role behind air and maritime forces responsible for the “air-sea gap.”⁷⁶ The Australian Army’s ability to respond to expeditionary tasks was degraded, lacking operational opportunities and reduced both in scale and capability. Operational reach and sustainability vulnerabilities during OP Morris Dance and the 1999 ADF-led operation in East Timor (INTERFET) exposed the extent of this degradation. A Parliamentary report in 2000 found the Army force generation capability to be an “inefficient model for expansion” and “fictional” due to the lack of “credible mobilisation plans.”⁷⁷ This strategic influence provided the impetus for change, including relevant funding. It was during this period that the ADF generated the current preparedness and mobilisation doctrine and system that is the basis for this research. Mobilisation for subsequent operations in Timor-Leste, the Solomon Islands, Iraq, and Afghanistan are examples of stage one mobilisation, involving the selective and voluntary mobilisation of reserves but not the challenges of expansion as examined in this paper.

The Army developed Plan Beersheba during this period to maintain credible, enduring, and relevant military capability. This organizational plan divided the Army into three primary Brigade groups, each rotated through three twelve month periods of escalating readiness. This recognizes the limited capacity of the Army, prioritizes and allocates resources to elements at each stage in the cycle. Plan Beersheba met the strategic requirements of government, provided a relevant role for the Army Reserve, enabled progressive and rapid modernization, and by emphasizing foundation warfighting training, provided a force capable of meeting known and unknown operational commitments. In addition, this period has seen adaptive approaches to personnel management and a holistic review of Army doctrine. Plan Beersheba has met preparedness requirements and enabled positive organizational development, but there is no evidence of advances in mobilisation either because of it, or during the period of its establishment as the Army’s framework.

Mobilisation remains an enduring national and military strategic requirement. The Chief of the Defence Force (CDF) mandated that “defence establish a baseline preparedness requirement whereby our forces have the knowledge and skills to engage in high-end warfighting activities for the self-reliant defence of Australia within a strategic warning time... This represents the expansion

base from which Defence mobilises.”⁷⁸ Strategic guidance in the 2016 Defence White Paper mandates “an increase in the ADF’s preparedness level, based on raising its overall capability and improving its sustainability on operations.”⁷⁹ The absence of thorough mobilisation doctrine is evidence that the challenges of mobilisation have not been adequately met.

APPENDIX B: THE REICHSWEHR: GERMAN EXPANSION CAPABILITY DURING THE INTERWAR PERIOD

Following defeat in WWI and under economic, political, and international treaty limitations, the German Army designed and built a force for future war. The *Reichswehr* materialized from a detailed study of the lessons of WWI, and preparations for a future conflict that would necessitate the conduct of rapid, mobile warfare. The outcomes of this study were articulated in *Army Regulation 487, Leadership and Battle with Combined Arms*, and adapted to the advent of armor and aviation in *Army Regulation 300, Troop Leadership*.⁸⁰

The *Reichswehr* was designed to achieve dual requirements of an “elite military strike force” and an expansion base for a “high-quality professional army” of twenty-one divisions. This necessitated a change in the role and conduct of mobilisation:⁸¹

“Von Schlieffen relied upon a detailed mobilization plan to bring a large conscript/reservist army to the front faster than the enemy. Von Seeckt preferred to start the war without prior mobilization and to gain surprise by using the highly mobile regulars for a first strike.”⁸²

Von Seeckt understood mobilisation to be a contemporary military requirement but importantly, he, like Von Schlieffen, used mobilization as a weapon of warfare.

The German concept of mobilisation was to involve four “waves,” each constituted from a distinct element of the army and with tasks relevant to its capability. The first wave was the regular armored and motorized regular army tasked to conduct the mobile warfare outlined in the revised German doctrine. The second consisted of reserve units with embedded regular cadre staff which would act as reinforcements or reserve pools for the first wave. The third wave consisted of “older reservists” with limited equipment and these *Landeschutz* divisions were used for domestic defence. The final wave was the “replacement army training divisions” which would support further mobilisation, after the Army had commenced the war.⁸³

That the German Army was able to expand from 100,000 in 1933 to over 3.7 million men by 1939 is testament to the mobilisation tools embedded within the *Reichswehr*. These building block tools of mobilisation can be observed in doctrine, personnel, and training. German doctrine, including *Leadership and Battle* and *Troop Leadership*, emphasized maneuver, an offensive mindset, decentralized command, initiative and battlefield judgement of commissioned and non-commissioned officers. These desired characteristics ensured that the mobilised force was suitable for the conduct of contemporary and future warfare as envisaged by von Seeckt. It enabled the German concept of secondary mobilisation by ensuring that the first wave force had sufficient capacity for tactical victory in independent operations, during which time mobilisation would be occurring.⁸⁴

The *Reichswehr* was limited in the source, quantity, and employment of personnel. The Treaty of Versailles banned conscription, requiring a cultural shift towards an all-volunteer force. Capacity was checked at 100,000 men, and the officer component was likewise limited at 4000 men. Finally, the nature of employment was limited, with no armor, heavy artillery or aviation capabilities allowed. These limitations required changes to the *Reichswehr* personnel policies and the division of tasks between commissioned and non-commissioned officers.

Pivotal to achieving the dual tasking requirement within these constraints was establishing leadership throughout the Army, which was articulated in creation of a *Führerheer* or Leaders Army. This stressed the importance of leaders at all levels and increased the scope of NCO responsibility into command positions previously the domain of officers. *Führerheer* prioritized the NCO over the private soldier, in effect creating an “up or out” personnel policy. It further highlighted the importance of first appointment NCOs through the establishment of selection examinations that, again, were previously the domain of officers. The education requirements and standards for officers, however, did not decrease; rather, they expanded to include the technical

aspect of modern warfare, specifically to understand the effects of modern weapons. Lastly, the requirement to maintain a healthy mobilisation base required all members of the *Reichswehr* to train to two levels of command higher than their current position.⁸⁵

Training was the final component of maintaining a force capable of meeting the dual requirements of a credible fighting force and an expansion base. The *Reichswehr* trained without the physical armor and aviation capabilities they knew were required for future warfare, instead improvising mock-ups or, in later phases, using covert means to build foundation armor and aviation capabilities in Russia. The conduct of annual progressive field maneuvers furthered these development programs and informed the development of doctrine, which was published before the military possessed the capability to which the doctrine referred.⁸⁶

APPENDIX C: FRENCH PREPARATION AND MOBILISATION FOR WORLD WAR TWO

In May 1940, the French doctrine of the previous two decades proved ineffective against the German offensive. By June of the same year, the destruction of French defences and the surrender of Paris outlined a strategic failure, to which military doctrine, organization, and equipment were central contributors. France's primary objective was to undermine German mobilisation preparations and while initial post-war inclinations were towards an offensive doctrine, the French Army developed a defensive doctrine that was reliant upon mobilisation. Contrary to Robert Doughty, who emphasized the French political leaders influence upon army doctrine, Elizabeth Kier contends that civilian leadership viewed military doctrine as "above their purview" and that the primary reason for this defensive approach was a cultural reaction within the military:⁸⁷

The French Army could not imagine short-term conscripts executing an offensive doctrine. For the French Officer, one-year conscripts were good for only one thing - implementing a defensive war plan. In the army's view, "young troops" could only be engaged methodically: they could not handle sophisticated technology, new methods of warfare, or demonstrate the *élan* necessary for offensive actions.⁸⁸

This cultural mindset was driven by domestic unrest, rather than an international or external threat oriented focus. In 1928, the French Government reduced the conscription term to one year, in response to the "fear of the latent domestic force of a professional army," although it later reverted to a two-year period in 1935. French Army Officers viewed this decision as a *fait accompli* that restricted their offensive capability, as they believed that a short-term conscription army was only capable of defensive, centrally controlled operations. This belief was founded in the technical demands of contemporary warfare and the requirement for collective spirit, determined to be solely achievable by a professional standing army. The implications of the French Army response to this political decision would manifest in *Bataille Conduite*, "the methodical battle," the Maginot line, and ultimately defeat.⁸⁹

The French Army's cultural attitude to the capabilities of a conscript army was enshrined into doctrine and training in the 1930's. Training manuals and directives emphasized the requirement for simplicity and centralized control, referring to the restrictions of recently mobilised troops. The French development of mechanized and motorized forces further restricted the offensive capabilities, dividing rather than massing these elements, and restricting the rate of mobility to the conscript infantry forces. The deciding factor, however, was the development of a protective and dogmatic approach to doctrine, which de-emphasized flexibility or adaptation, instead mandating strict obedience of "interchangeable units" to procedures that "systematically compel every detail of execution."⁹⁰

The French decision to restructure the duration of service, therefore the structure of its Army, created immediate and enduring capability implications. The reduction of full-time personnel reduced their ability to commit to autonomous action in Europe, degraded if not removed their ability to generate offensive strategic capabilities, and reduced their peacetime army to "a skeleton around which the wartime army mobilized." The level of reserve training was limited by policy, and further degraded by the economic impact of the depression. The progression had a reserve soldier move through tiers of training, which included as little as six weeks in sixteen years, then seven days in eight years following their active duty service. The concept for mobilisation was, with strategic warning time, to divide each active division which reinforced with reservists, to form three divisions. The result of this concept was greater quantity, of lesser quality, which was relevant to the expectation of a long duration large-scale war, but not to the reality of a frontier battle.⁹¹

France understood and planned for the enormity of the economic, physical, and military requirements of mobilisation. Intending to employ the military shield of a portion of the standing army, sustained by stockpiled resources relevant to Defence, the French designed a mobilisation

system intended to create time. This conceptual plan was in response to a growing French appreciation of the German capability to conduct *attaque brusque*, or from the German perspective, *Blitzkrieg*.⁹²

Readiness was an essential component of the French mobilisation concept. Historically, active units had maintained dual responsibility for peacetime training and for wartime mobilisation. However, the organizational shift towards a reservist, rather than active, army mandated change. The imperative for rapid mobilisation of the reserves, the anticipation that the active army would already have deployed, and the recognition of reduced capability within the reserve led to the creation of mobilisation centers. These centers were operated primarily by civilians, with training delivered by active personnel, not necessarily of the units with which the reserves would mobilise. The centers would administer and mobilise reserve units, providing detailed manuals and plans to ensure an efficient process. The French Army were not derelict in either identifying or attempting to rectify shortfalls in the readiness of reservists, conducting mobilisation exercises as early as 1934. The results of these exercises, while damning on the caliber of reserves, did not result in changed training policies and only served to reinforce the French Army mandate for a defensive doctrine. As a result, the French mobilisation process could not provide the “highly trained and cohesive reserve units” that were required for war.⁹³

Endnotes

- ¹ Australian Defence Force, *Foundations of Military Doctrine*, ADDP-D (Canberra. Headquarters Australian Defence Force, May 31, 2012),7-3.
- ² LTCOL Andrew Stevens and Dr Haroro Ingram, “Reframing the Defence Discourse: Australia’s ‘black swan’ and its implications for preparedness and mobilisation,” *The Australian Defence Force Journal* 190, (2013): 38.
- ³ Stevens, Ingram, *The Australian Defence Force Journal*, 30.
- ⁴ *Ibid*, 30.
- ⁵ Australian Defence Force, *Preparedness and mobilisation*, ADDP 00.2 (Canberra, Headquarters Australian Defence Force, May 27, 2013), 3-4 – 3-6.
- ⁶ Australian Defence Force, *Joint Planning (Provisional)*, ADDP 5.01 (Canberra. Headquarters Australian Defence Force, September, 2002).
- ⁷ Headquarters US Marine Corps, *Planning*, MCDP 5 (Washington, D.C: Headquarters US Marine Corps, July 21, 1997), 3, 7,19,23-27, 35-38.
- ⁸ MCDP 5, *Planning*, 38-52.
- ⁹ *Ibid*, 83-85.
- ¹⁰ Barry Posen, *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars* (Ithaca: Cornell University Press, 1984), 14.
- ¹¹ Australian Defence Force, *Foundations of Military Doctrine*, ADDP-D (Canberra. Headquarters Australian Defence Force, May 31, 2012), 3-1 – 3-6.
- ¹² Australian Defence Force, *Doctrine and Training*, ADDP 7.0 (Canberra. Headquarters Australian Defence Force, January, 2006), 2-4 to 2-5.
- ¹³ Legacy doctrine, Manual of Land Warfare, Part 2, Infantry Training, Vol 1; UK Doctrine, Dismounted close combat. VOL 1, Infantry Coy Group/ Infantry Platoon Tactics.
- ¹⁴ Australian Defence Force, *Preparedness and mobilisation*, ADDP 00.2 (Canberra, Headquarters Australian Defence Force, May 27, 2013), 1-2, 2-1 to 2-3.
- ¹⁵ ADF, *Preparedness and mobilization*, Chapter 5.
- ¹⁶ Headquarters US Marine Corps, *Planning*, MCDP 5 (Washington, D.C: Headquarters US Marine Corps, July 21, 1997), 84.
- ¹⁷ Australia’s Deterrence defence posture is outlined in Australian Department of Defence, *2016 Defence White Paper* (Canberra, Department of Defence, February 2016), 71-77, <http://www.defence.gov.au/whitepaper/>; Australian Defence Force, *Foundations of Military Doctrine*, ADDP-D (Canberra. Headquarters Australian Defence Force, May 31, 2012), 5-5 -5-6.
- ¹⁸ House of Representatives, Joint Standing Committee on Foreign Affairs, Defence and Trade, *From Phantom to Force: Towards a More Efficient and Effective Army* (Canberra, September 2000), Chapter 2, 16.
- ¹⁹ David Lowe, *Menzies and the 'great World Struggle': Australia's Cold War, 1948-1954* (Sydney: UNSW Press, 1999), 14; <http://primeministers.naa.gov.au/primeministers/menzies/>
- ²⁰ Lowe, *Menzies and the 'great World Struggle': Australia's Cold War, 1948-1954*, 142-144.
- ²¹ Jeffrey Grey, *A Military History of Australia* (Cambridge: Cambridge University Press, 1999), 264.
- ²² Australian Defence Force, *Preparedness and mobilisation*, ADDP 00.2 (Canberra, Headquarters Australian Defence Force, May 27, 2013), 1-1.
- ²³ Australian Department of Defence, *2016 Defence White Paper* (Canberra, Department of Defence, February 2016), <http://www.defence.gov.au/whitepaper/>, 140-141.
- ²⁴ Elberton R Smith, *The Army and Economic Mobilization*. United States Army in World War II: (The War Department; United States Army in World War II, War Department. Washington, D.C.: Office of the Chief of Military History, Dept. of the Army. 1959), 83-85, 437-445.
- ²⁵ Brian C North, *Making the difficult routine: US Army Task Organization at the Army and Corps level in Europe* (1944 Combat Studies Institute Press: Fort Leavenworth, Kansas, 2016).

- ²⁶ Harold J. Clem, *Mobilization Preparedness* (Washington D.C.: National Defence University, 1983), 63.
- ²⁷ Bryan Rozman, "Reversibility in the Army: More than Industrial Age Conscription" *Strategy Bridge*, Dec 09, 2014, <http://thestrategybridge.org/the-bridge/2014/12/9/reversibility-in-the-army-more-than-industrial-age-conscription>
- ²⁸ Franklin L. Jones, "Domestic and Expeditionary Readiness in the Twenty-First Century: Maintaining an Operationalized Army National Guard" (masters thesis, School of Advanced Military Studies, United States Army Command and General Staff College, 2012), 13, 18, 29.
- ²⁹ Nate Finney, "A High-Tech call to arms: Mobilizing the masses in the Twenty-First Century," *Modern War Institute* (blog), February 3, 2017, <http://mwi.usma.edu/high-tech-call-arms-mobilizing-masses-twenty-first-century/>
- ³⁰ Robert A. Doughty, "The French Armed Forces, 1918-1940," in *Military Effectiveness*, ed. Allan R. Millett and Williamson Murray (Boston: Allen and Unwin, 1988), 64.
- ³¹ Doughty, *The Seeds of Disaster*, 22, 24.
- ³² Marvin A Kreidberg and Merton G Henry, *History of Military Mobilization in The United States Army, 1775-1945*, 1st ed. (Washington, D.C.: Department of the Army, 1955) 596-614, 689-693.
- ³³ Michael Fullilove, *Rendezvous With Destiny*, 1st ed. (New York: The Penguin Group, 2013) 236-237.
- ³⁴ Colin S Gray, *Another Bloody Century*, 1st ed. (London: Phoenix, 2006), 37.
- ³⁵ Australian Army Headquarters, *2014 Future Warfare Report*, (ACT, April 2014), 4, 23.
- ³⁶ Colin S Gray, *Another Bloody Century*, 1st ed. (London: Phoenix, 2006), 24-25, 61-98.
- ³⁷ Storr, Jim. *The Human Face of War (Birmingham War Studies Series)*. Continuum International Publishing Group Ltd, 2009, 26, 40.
- ³⁸ Storr, 106.
- ³⁹ Dr Phillip A. Karber, "Lessons Learned from the Russo-Ukrainian War," (Draft, The Potomac Foundation, 2015), 10-27, 28-33, 43-48.
- ⁴⁰ Richard Bessel, *State, Society, and Mobilization in Europe during the First World War*, Studies in the social and cultural history of modern warfare, ed. John Horne (Cambridge: Cambridge University Press, 1997), 219.
- ⁴¹ Mark Thomson, "Will Australia have the Economic, Industrial and Workforce Skill Base to Support the ADF in 2020 and Beyond?" *The Australian Defence Force Journal* 173, (2007): 103
- ⁴² Defence Force Recruiting, *DFR Strategic Plan 2016-2025* (Canberra: DFR, May 26, 2016), 5-6.
- ⁴³ Australian National Audit Office Performance Audit 31 2008-2009, *Army Reserve Forces: Department of Defence* (Barton, ACT, Commonwealth Copyright Administration, 2009), 11.
- ⁴⁴ COL Chris Smith and Dr Al Palazzo, "Coming to terms with the modern way of war." *Australian Land Warfare Concept series, Vol 1* (2016):23
<https://www.army.gov.au/our-work/publications/discussion-papers/coming-to-terms-with-the-modern-way-of-war-precision>
- ⁴⁵ Bryan Rozman, "Reversibility in the Army: More than Industrial Age Conscription" *Strategy Bridge*, Dec 09, 2014, <http://thestrategybridge.org/the-bridge/2014/12/9/reversibility-in-the-army-more-than-industrial-age-conscription>
- ⁴⁶ Richard V.L. Cooper, *Military Manpower and the All-Volunteer Force*, A Rand Corporation report prepared for the Defense Advanced Research Projects Agency, 1977, 291-302.
- ⁴⁷ Brian C North, Making the difficult routine: US Army Task Organization at the Army and Corps level in Europe (1944 Combat Studies Institute Press: Fort Leavenworth, Kansas, 2016), 24.
- ⁴⁸ Bob Scales, *Scales on War. The future of America's military at risk* (Maryland, Naval Institute Press, 2016), 80, 202
- ⁴⁹ The Australian Army, "*The Ryan Review: A Study of Army's education, training and doctrine needs for the future*," Study, April 2016, 7, 28,51.
- ⁵⁰ Brian C North, Making the difficult routine: US Army Task Organization at the Army and Corps level in Europe (1944 Combat Studies Institute Press: Fort Leavenworth, Kansas, 2016),43.

- ⁵¹ Elberton R Smith, *The Army and Economic Mobilization*. United States Army in World War II: (The War Department; United States Army in World War II, War Department. Washington, D.C.: Office of the Chief of Military History, Dept. of the Army. 1959), 437.
- ⁵² The ADF has responded to demographic and civilian workforce changes that demand greater flexibility by implementing the *Total Workforce Model* (TWM.) The TWM provides a framework for personnel management that allows for a simplified transition between deployable service, full and part-time employment, regular and reserve status. The implementation of this system provides an opportunity for the Army to capitalize on the capabilities of the Reserve, and to provide flexible opportunities to regular personnel. It also provides a catalyst to review functional and detailed mobilisation plans to capitalize on these advancements.
- ⁵³ House of Representatives, Joint Standing Committee on Foreign Affairs, Defence and Trade, *From Phantom to Force: Towards a More Efficient and Effective Army* (Canberra, September 2000), Chapter 6, 105.
- ⁵⁴ <http://www.naa.gov.au/collection/fact-sheets/fs160.aspx>
- ⁵⁵ <http://www.naa.gov.au/collection/fact-sheets/fs161.aspx>
- ⁵⁶ House of Representatives, Joint Standing Committee on Foreign Affairs, Defence and Trade, *From Phantom to Force: Towards a More Efficient and Effective Army* (Canberra, September 2000), Chapter 2, 13.
- ⁵⁷ <http://www.naa.gov.au/collection/fact-sheets/fs162.aspx>
- ⁵⁸ Robert J O'Neill, *Australia in The Korean War 1950-53. Volume 1. Strategy and Diplomacy* (Canberra: Australian War Memorial and the Australian Government Pub. Service, 1981), 22.
- ⁵⁹ O'Neill, *Australia in The Korean War 1950-53*, 26-35.
- ⁶⁰ *Ibid*, 74.
- ⁶¹ David Lowe, *Menzies and the 'great World Struggle': Australia's Cold War, 1948-1954* (Sydney: UNSW Press, 1999), 14; <http://primeministers.naa.gov.au/primeministers/menzies/>
- ⁶² Lowe, *Menzies and the 'great World Struggle': Australia's Cold War, 1948-1954*, 7.
- ⁶³ *Ibid*, 129.
- ⁶⁴ *Ibid*, 10, 131.
- ⁶⁵ *Ibid*, 9.
- ⁶⁶ *Ibid*, 139.
- ⁶⁷ *Ibid*, 147
- ⁶⁸ Robert J O'Neill, *Australia in The Korean War 1950-53. Volume 1. Strategy and Diplomacy* (Canberra: Australian War Memorial and the Australian Government Pub. Service, 1981), 47-49.
- ⁶⁹ <http://www.naa.gov.au/collection/fact-sheets/fs163.aspx>
- ⁷⁰ O'Neill, *Australia in The Korean War 1950-53*, 35.
- ⁷¹ David Horner and Jean Bou, *Duty First*, 1st ed. (Crows Nest, N.S.W.: Allen & Unwin, 2008), 57-80.
- ⁷² O'Neill, 250-252.
- ⁷³ *Ibid*, 251.
- ⁷⁴ Lowe, *Menzies and the 'great World Struggle': Australia's Cold War, 1948-1954*, 142-144.
- ⁷⁵ <https://www.awm.gov.au/encyclopedia/conscription/vietnam/>
- ⁷⁶ Jeffrey Grey, *A Military History of Australia* (Cambridge: Cambridge University Press, 1999), 275-276.
- ⁷⁷ House of Representatives, Joint Standing Committee on Foreign Affairs, Defence and Trade, *From Phantom to Force: Towards a More Efficient and Effective Army* (Canberra, September 2000), Chapter 6, 124.
- ⁷⁸ Commodore Spedding, RAN, VCDF Group, Defence magazine 2012.
- ⁷⁹ Australian Department of Defence, *2016 Defence White Paper* (Canberra, Department of Defence, February 2016), <http://www.defence.gov.au/whitepaper/>, 140.
- ⁸⁰ James Sterling Corum, *The Roots of Blitzkrieg* (Lawrence, Kan.: University Press of Kansas, 1992), 37, 49, 199-200.

⁸¹ Corum, *The Roots of Blitzkrieg*, 69.

⁸² *Ibid*, 52.

⁸³ *Ibid*, 200.

⁸⁴ *Ibid*, 37-38.

⁸⁵ *Ibid*, 33, 69, 201.

⁸⁶ *Ibid*, ix, 69, 97-99, 133, 160, 183, 191-195.

⁸⁷ Elizabeth Kier, *Imagining War: French and British Military Doctrine between the Wars* (Princeton, N.J.: Princeton University Press, 1997), 39, 53-55, 72-73; Robert A. Doughty, *The Seeds of Disaster* (Hamden, Conn.: Archon Books, 1985), 1-5, 14.

⁸⁸ Kier, *Imagining War: French and British Military Doctrine between the Wars*, 73.

⁸⁹ Kier, *Imagining War: French and British Military Doctrine between the Wars*, 15, 56, 60, 70-71, 86; Robert A. Doughty, *The Seeds of Disaster* (Hamden, Conn.: Archon Books, 1985), 22.

⁹⁰ Kier, *Imagining War: French and British Military Doctrine between the Wars*, 76-77; General Eugene Debeney, quoted in Doughty, *The Seeds of Disaster*, (Hamden, Conn.: Archon Books, 1985), 11.

⁹¹ Doughty, *The Seeds of Disaster*, 22-24.

⁹² *Ibid*, 25-27.

⁹³ *Ibid*, 29-31.

Bibliography

- Australian Army Headquarters. *2014 Future Warfare Report*. ACT, April 2014.
- Australian Army Headquarters. “*The Ryan Review: A Study of Army’s education, training and doctrine needs for the future.*” Study, April 2016.
- Australian Defence Force. *Foundations of Military Doctrine*. ADDP-D. Canberra, Headquarters Australian Defence Force, May 31, 2012.
- Australian Defence Force. *Preparedness and mobilisation*. ADDP-D 00.2. Canberra, Headquarters Australian Defence Force, May 27, 2013.
- Australian Defence Force, *Joint Planning (Provisional)*. ADDP 5.01. Canberra, Headquarters Australian Defence Force, September, 2002.
- Australian Defence Force, *Doctrine and Training*. ADDP 7.0. Canberra, Headquarters Australian Defence Force, January, 2006.
- Australian Department of Defence. *2016 Defence White Paper*. ACT, February 2016.
- Australian National Audit Office Performance Audit 31 2008-2009. *Army Reserve Forces: Department of Defence*. Barton, ACT, Commonwealth Copyright Administration, 2009.
- Blaxland, John. *Australian Army from Whitlam to Howard, The*. Cambridge University Press, 2013.
- Clem, Harold J. *Mobilization Preparedness*. Washington D.C.: National Defence University, 1983.
- Corum, James Sterling. *The Roots of Blitzkrieg*. Lawrence, Kan.: University Press of Kansas. 1992.
- Defence Force Recruiting. *DFR Strategic Plan 2016-2025*. Canberra: DFR, May 26, 2016.
- Doughty, Robert A. *The Seeds of Disaster*. Hamden, Conn.: Archon Books. 1985.
- Doughty, Robert A. “The French Armed Forces, 1918-1940.” In *Military Effectiveness*, edited by Allan R. Millett and Williamson Murray, Vol. II, 53-66. Boston: Allen and Unwin, 1988.
- Field, Chris. “Enabling Army Innovation.” *Australian Army Journal*, Vol XIII, no. 1 (Autumn 2016): 68-80.
- Field, Chris. “Reinvigorating Education in the Australian Army.” *Australian Army Journal*, Vol XI, no. 1 (Winter 2014): 75-93.
- Fullilove, Michael. *Rendezvous With Destiny*. New York: The Penguin Group, 2013.
- Gray, Colin, S. *Another Bloody Century*. London: Phoenix, 2006.
- Grey, Jeffrey. *A Military History of Australia*. Cambridge: Cambridge University Press, 1999.
- Headquarters US Marine Corps. *Marine Corps Operating Concept*. Washington, D.C: Headquarters US Marine Corps, September, 2016.

-
- Headquarters US Marine Corps. *Planning*. MCDP 5. Washington, D.C: Headquarters US Marine Corps, July 21, 1997.
- Horne, John. *State, Society, and Mobilization in Europe during the First World War*. Studies in the social and cultural history of modern warfare. Cambridge: Cambridge University Press. 1997.
- Jones, Franklin. L. "Domestic and Expeditionary Readiness in the Twenty-First Century: Maintaining an Operationalized Army National Guard." Masters thesis, School of Advanced Military Studies, United States Army Command and General Staff College, 2012.
- Karber, Phillip. "Lessons Learned from the Russo-Ukrainian War," Draft. The Potomac Foundation. July 06, 2015.
- Kier, Elizabeth. *Imagining War: French and British Military Doctrine between the Wars*. Princeton, N.J.: Princeton University Press. 1997.
- Horner, David, and Jean Bou. *Duty First*. 1st ed. Crows Nest, N.S.W.: Allen & Unwin, 2008.
- House of Representatives. Joint Standing Committee on Foreign Affairs, Defence and Trade. *From Phantom to Force: Towards a More Efficient and Effective Army*. Canberra, September 2000.
- Lowe, David. *Menzies and the 'great World Struggle': Australia's Cold War, 1948-1954*. Sydney: UNSW Press. 1999.
- North, Brian C. *Making the difficult routine: US Army Task Organization at the Army and Corps level in Europe, 1944* Combat Studies Institute Press: Fort Leavenworth, Kansas. 2016
- O'Neill, Robert J. *Australia in The Korean War 1950-53. Volume 1. Strategy and Diplomacy*. Canberra: Australian War Memorial and the Australian Government Pub. Service. 1981.
- Palazzo, Anthony. "The Future of War Debate in Australia: Why has there not been one? Has the need for one now arrived?" Working Paper No. 140. Land Warfare Studies Centre, August 2012. Also available online at:
<http://www.army.gov.au/Whoweare/Meetourpeople/~media/Files/Our%20future/LWSC%20Publications/WP/pdfs/WP140-The-Future-of-War-Debate-in-Australia.pdf>
- Posen, Barry. *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars*. Ithaca: Cornell University Press. 1984
- Cooper, Richard V.L. *Military Manpower and the All-Volunteer Force*. A Rand Corporation report prepared for the Defense Advanced Research Projects Agency, 1977.
- Rostker, Bernard D, and Yeh, K. C. *I Want You! The Evolution of the All-Volunteer Force*. Santa Monica, US: RAND Corporation, 2006. <http://www.proquest.com>
- Scales, Bob. *Scales on War. The future of America's military at risk*. Maryland, Naval Institute Press, 2016.

-
- Smith, R. Elberton. *The Army and Economic Mobilization*. United States Army in World War II: The War Department; United States Army in World War II, War Department. Washington, D.C.: Office of the Chief of Military History, Dept. of the Army. 1959.
- Smith, COL Chris, and Palazzo, Dr Al. "Coming to terms with the modern way of war." *Australian land warfare concept series. Vol 1 (2016)*:
<http://www.army.gov.au/Our-future/Publications/Discussion-Papers/Concept-Paper-1>
- Stapleton, N, and Field, C. "Australian Infantry: Leading Army's 5th Generation transition." *Australian Infantry Magazine*. (Oct 2015 – April 2016): 76-85
- Stevens, Andrew, and Ingram, Haroro. Reframing the Defence Discourse: Australia's 'black swan' and its implications for preparedness and mobilisation. *The Australian Defence Force Journal* 190, (2013): 30-43
- Storr, Jim. *The Human Face of War (Birmingham War Studies Series)*. Continuum International Publishing Group Ltd, 2009.
- Thomason, Mark. Will Australia have the Economic, Industrial and Workforce Skill Base to Support the ADF in 2020 and Beyond? *The Australian Defence Force Journal* 173, (2007): 101-109