

Australian Army Research Centre

People, Procedures and Professionalisation Achieving that Long-Desired Information Advantage

Jason Logue

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Serving our Nation

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Foreword

This thoughtful and candid article from Jason Logue addresses challenges and opportunities within the Australian Defence Force (ADF) regarding the evolution of operations in the information environment. While he focuses on his experiences within the ADF, his characterisation, observations and views are consistent with US challenges based upon my almost 30 years of experience as US Department of Defense Information professional.

Essentially, Grey Matter – matters! Lessons of the past illuminate, and affirm that people – skills, experience, knowledge, and creativity – are 'the decisive terrain' in competition and war. It is strategically important to identify, cultivate and sustain a cadre of 'information and influence' professionals supporting a broader foundation of the strategic and operational art of manoeuvre. In a complex and evolving environment that is dominated by effects at the intersections of information technology and human cognition, this support is critical to national and global security.

This appreciation is not new. Logue highlights that it is reflected in the lessons, organisational designs, and strategic and operational applications of some of the world's greatest thought leaders of the past. But, time-worn constructs, risk concerns, complexity, and ambiguity within the rapidly evolving multidisciplinary information mission-space handicap the ability of democratic nations to effectively compete against adversaries who understand the value and have prioritised resources (technological and human) to gain strategic advantage. A competitive gap is further exacerbated by shortfalls in well experienced and skilled career professionals capable of the necessary understanding, campaign design, capability development, and sustained implementation of actions critical to achieve strategic and operational objectives. Logue's treatment of these issues is well considered and timely. Not only for an Australian audience but also for the broader international partner enterprise that is also seeking to improve foundational capabilities and effects in a competitive global environment defined by information and influence. His analysis and recommended solutions are based on his years of experience and historical examples that affirm Logue's premise that a 'quality professional staff' - educated, trained, and experienced in the complexities of the information environment - is essential to the achievement of competitive advantage over those who challenge our interests.

Austin Branch

Professor of Practice University of Maryland Applied Research Lab for Intelligence & Security (Retired US Army and Office of Secretary of Defense Executive) 23 September 2022

Part 1—An Issue a Century in the Making

Introduction

The release of Major General Hocking's key organisational lessons from the Afghanistan Campaign¹ highlights an unbalanced concentration on the top and bottom of the Defence enterprise, with a core concern related to the ability of the Australian Defence Force (ADF) to effectively orchestrate campaigning through a design and assessment approach.² For the very few Australian practitioners of the military art variously known as Information Operations, Information Activities or most recently (again) Information Warfare, the observation is anything but revelatory. Hocking's paper, focused for the most part on the ADF's performance in a population-centric counter-insurgency campaign, ostensibly links this military art to a whole-of-government issue in communication and influence. A more critical view reveals a misunderstanding of the key element of the ADF working in and through the information environment. For years the Australian Defence Force as a whole, and the Australian Army more specifically, has struggled with the concept of a professional 'Information-X' staff developed to ensure the long experience and context required to effectively wield informational and moral power. Organisationally describing it as a warfighting function has fluctuated from a core defensive focus on building and sustaining domestic support through to sprinkling it across clearly defined capability-led Joint functions as an enabler. All seem to know it is important; very few have been successful in incorporating it in a meaningful way.

Within the first few pages of On War, Clausewitz states bluntly:

If you want to overcome your enemy you must match your effort against his power of resistance, which can be expressed as the product of two inseparable factors, viz. the total means at his disposal and the strength of his will.³

Later in Chapter One he doubles down by observing:

When we speak of destroying the enemy's forces we must emphasize that nothing obliges us to limit this idea to physical forces: the moral element must also be considered.⁴

This paper, a product of more than 20 years of consistent work in the information field, draws on the author's experiences in the Army, in the ADF, and with our allies and partners across the full spectrum of military operations. It seeks to correct some misperceptions while making a case that now, more than ever before, there is a requirement to develop, prepare and manage a true information speciality to focus effects against the strength of an adversary's will. Army must generate the necessary staff experience, at the operational and strategic level of military command, to ensure that tomorrow's ADF commanders can effectively orchestrate full-spectrum campaigns, informed by quality assessment. It will require, in Army in particular, a cultural reconsideration of the true value of a skilled and experienced staff officer. More importantly it will require a deep appreciation of the personnel management challenge in creating them.

Myths and Mindsets

'You must aim at the Staff College, but for the love of God never become a professional Staff Officer.'⁵ Colonel Richard Meinertzhagen CBE DSO, Diary of a Black Sheep

Royal Fusiliers officer Colonel Richard Meinertzhagen is known to generations of military personnel as the daring man behind the 'Haversack Ruse' in the 1987 Australian film *The Lighthorsemen*.⁶ The then Major Meinertzhagen has a small but memorable role in the film, which tells the dramatic story of the 4th Australian Light Horse Regiment's successful cavalry charge at Beersheba on 31 October 1917. The 'Ruse' is portrayed in the movie, and history, as being a remarkable deception effort which convinced Ottoman commanders that any Allied movements near Beersheba were a feint and that the long-forecast Allied attack was directed at Gaza. Aided by the ready visualisation from the movie, elements of Meinertzhagen's story have formed the basis of Information Operations lessons to military audiences for decades.

Meinertzhagen weaved a colourful account of his role in the deception.⁷ Among the ploys adopted, he claimed credit for the inclusion in the haversack of a heartfelt letter from a fictional new mother written by his sister in the UK (later changed to a nursing sister serving in Al Arish⁸). Meinertzhagen's account also had him riding out into contact alongside a Lighthorseman and dropping the haversack on 10 October 1917. Meinertzhagen added a further flourish to his ruse story, describing the covert delivery of opium-laced cigarettes to the German and Turkish defenders to ensure they were less effective during the assault.

In reality, the plan is now known to have been developed by another British officer, Lieutenant Colonel John Dalrymple Belgrave,⁹ and executed over a period of several weeks. Belgrave was a staff officer¹⁰ on General Allenby's headquarters. Notably, the actual haversack was delivered by Captain Arthur Neate on 12 September 1917, not by Meinertzhagen. Due to his post-World War I career in the intelligence services,¹¹ however, Neate was unable to publicly comment about Meinertzhagen's claims when they became popular. When Neate finally sought to correct the record in the mid-1950s by writing to *The Spectator*, the legend had already been born.

The greatest impact of the 'Haversack Ruse' story is the misconception it created in generations of military officers who only heard Meinertzhagen's popularised account of events. Following the loss of Palestine to the Allies, German 8th Army Commander General von Kressenstein laid blame for the Beersheba debacle squarely on his Turkish colleague:

Beersheba was occupied by thirteen battalions, six batteries, and a cavalry division. This force would normally be considered capable of resisting any attack over open ground against the strong positions of Beersheba. If, in spite of this, Beersheba fell, the responsibility rests on the Commander of the 3rd Corps, who split up all his reserves until only one battalion remained when the enemy delivered his decisive attack.¹²

The irrefutable fact that Ottoman commanders chose to take no action to reinforce Gaza before the assault on Beersheba has led to a century of speculation concerning the effectiveness of the 'Ruse'. Perhaps seeking to reclaim some credibility after the complete loss of Palestine, and strong accusations from the Turks, who attributed the sacrifice of their personnel to the 'Ruse', von Kressenstein went on to intimate that he clearly understood Beersheba was a feint just two months after it all went so badly.¹³ The strongest Turk recriminations implicating the 'Ruse', and von Kressenstein's belief that deceptive material was the reason for the loss, came in 1921.¹⁴ This was well after basic knowledge of the deception effort was public.

As with everything in the Meinertzhagen telling, there is no evidence to support his flamboyant claims. The unsubstantiated assertions made by him, among several others, led Brian Garfield to title his book *The Meinertzhagen Mystery: The Life and Legend of a Colossal Fraud.* While not as critical of the effect that the 'Haversack Ruse' had on the Ottomans, fellow historian Nicholas Rankin similarly concluded that Meinertzhagen was not the man he pretended to be. Rankin observed that '[n]o man was a greater burnisher of his own reputation'.¹⁵ The Fusilier Museum London's display of Meinertzhagen's medals¹⁶ subtly highlights the contradictions in Meinertzhagen's storied life and service. But the display does not definitively address the issues of his character. Indeed, it takes some reading to find any references to fraud.

Meinertzhagen was not the first, and is unlikely to be the last, to roundly denigrate the role and function of a military's professional staff officers. It is the alignment of his exploits with the field of Information Operations that has fuelled a particularly pernicious view of the specialisation that commandeers military thought. This is despite the fact that Meinertzhagen was, to put it bluntly, a self-aggrandising, valour thief who, Garfield alleges, swept in to steal the credit.¹⁷ Despite this, regimental reputation has ensured that Meinertzhagen's background and lineage as a 'fighting officer on the staff', rather than a 'staff officer supporting the fight', led to the success of the endeavour in Palestine.

Meinertzhagen's story is but one of hundreds of data points in the continued and perpetual tension within Western military formations in which organisational lineage, position and rank are correlated with capability, knowledge and expertise in any field. It is also reflective of a continued organisational view that the only fighting of importance is done at the point of the bayonet. The tawdry story of Meinertzhagen typifies the Information Operations field of warfare and the endemic issues it faces today.

Reality Bites

'Selection of the right man is even more important than the creation of the right machine.'¹⁸

Memorandum from Dr Hugh Dalton to Winston Churchill, 19 August 1940, 'The Fourth Arm', recommending the creation of what would become the Political Warfare Executive

Thankfully, the consequences of Meinertzhagen's usurping and popularising of the 'Haversack Ruse' were not all bad. In the 1930s, one person who was reportedly enthralled by the story was future British Prime Minister Winston Churchill.¹⁹ At a time of national crisis, the legend created by Meinertzhagen came to the fore. Many have speculated (Meinertzhagen included²⁰) that the heroic tale of informational success was at the forefront of Churchill's mind during considerations for what became known as the London Controlling Section at the beginning of World War II.²¹ Following the rapid losses leading to the Dunkirk evacuation, Churchill lamented that his military commanders were 'too linear'. In seeking a decisive advantage, he went in search of what he described as 'corkscrew minds' that could dramatically alter German calculations²²—people who thought differently, as recommended by Dr Hugh Dalton in his early essay on a Political Warfare Executive. Churchill's shrewd focus towards a 'people solution' over a technological one was reflective of both the perilous state of martial supply, and the existence of a military command that was struggling to comprehend just what had occurred in Western Europe.

In his official history of the Political Warfare Executive 1939-1945, David Garnett summarised the importance of professional expertise as a counterpoint to technology. In several recommendations, he identified the need for specialised and focused political warfare training, ongoing technical research, and understanding and compilation of materials (structured regionally rather than functionally) to support the development of professional expertise about the information environment. Most importantly, he recognised that any attempt to create an information function only in wartime would result in significant wasted effort as entrenched bureaucratic mechanisms struggled to address new challenges within pre-existing organisational paradigms.²³ The London Controlling Section became the home of Churchill's corkscrew thinking. It was given a small budget but great operational freedom and reach by virtue of its establishment at the highest levels of British command. Its task was simple—to create conditions under which the Allied military commanders would have an advantage over their German and Italian opposites. Historian Ben Macintyre summarises the small team's role as to 'imagine the unimaginable and lure the truth towards it'.²⁴ The corkscrew thinking required to get there was the antithesis of the procedural and linear approach that had been historically instilled through regimentation. Most importantly, while linear thinking could be taught relatively quickly through military training, corkscrew thinking was enculturated through deep exposure, experience, education and innovation. Churchill clearly understood that to be successful, Britain needed both, and that creative approaches could create strategic time and space in the absence of an ability to immediately strike decisively with physical power.

The London Controlling Section (and its related outfits, the 20 Committee, the Political Warfare Executive, the Special Operations Executive, 'A'-Force, and even the Camouflage Committee) were populated by small groups of handpicked officers and officials. Those selected had varied career histories and none were mainstream within their chosen organisations. What they had in common was the unique capacity to understand how to plan and employ informational and moral power. Specifically, they could effectively plan and orchestrate a series of events, some so sensitive that they executed select tactical actions themselves, to persuade targeted decision-makers to form an understanding advantageous to the Allies. Strategic opportunity was generated by sequenced tactical actions over several weeks, or even months, in multiple domains and using the broadest range of communication channels. Capitalising upon this opportunity required careful weaving of fact, action and, at times, fiction to generate a compelling understanding in the minds of the enemy and its supporters. The small teams were responsible for some of the most important aspects of the agreed strategy for the war. Accountability for their plans and actions was held at the highest levels, and knowledge of their work closely controlled. The London Controlling Section embodied a process of unconventional capability and thinking, integrating within a conventional organisation.

The United Kingdom's World War II focus on having the right people available to conduct Information Operations was not unique in 20th Century history. For example, at the height of the Cold War, the United States, having seen what could be done across Europe (after learning 'on the job' in the Mediterranean with 'A'-Force²⁵) lamented the lack of similar expertise and specialisation. In a pointed submission, Congress highlighted these issues on a very public stage.²⁶ Similarly, at the peak of the World War II Japanese threat to Australia—and with deep concern about subordinating the Australian military to General MacArthur—the Australian Army realised it needed something else.

The answer to Australia's need was the creation of the specially formed and staffed Directorate of Research and Civil Affairs within General Blamey's Allied Land Forces Headquarters. The Directorate's creation sought to ensure the military and civilian bureaucracy understood the complexity of, and requirement to deal with, the ongoing threat posed by the Japanese. Blamey feared 'Australia Inc.' would revert to bureaucratic type once the bombs were no longer falling on Darwin. As detailed by historian Graeme Sligo, the Directorate focused on ensuring General Blamey and his headquarters understood (what we would now describe as) the information environment they needed to work through and within—both externally and internally. The Directorate's strength lay in its recruitment and employment of established specialists across multiple disciplines. Like many exigencies of war, dependence on generalist staff officers made way for reliance on deep specialists with knowledge and skills that were critical in a time of crisis.

That this effort was so important within the information environment of the 1940s, 1950s, 1960s and 1970s makes it even more so in the complex, connected and contested information environment of the 2020s. Ensuring that selected corkscrew minds can work effectively within and throughout—the broader organisation is essential. Harmonising the planning and application of physical, informational and moral power for greatest effect has been at the core of warfare since the very beginning.

Sacred Cows

'Lessons from commercial advertising are not necessarily as directly applicable as some practitioners in the field believe. Soldiers and Marines are not selling a product.'²⁷

Brigadier General Huba Wass de Czege, US Army (Retd)

Since the era of Clausewitz, the requirement to operate in and throughout the information environment has remained constant. The rapidity of change, however, has surpassed organisational methods, particularly since the dawn of the current millennium. Heralding the technology impacts, in 2002 scholars John Arguilla and David Ronfeldt asserted that a lack of focus on their concept of 'Netwar' was allowing potential and actual adversaries to eclipse those organisations that struggled to understand, let alone implement, the necessary doctrine and policy changes. As they forecast, and was unfortunately vividly realised during the Global War on Terror, adversaries rapidly advanced in this field 'as both civil and uncivil society actors are increasingly engaging in this new way of fighting'.²⁸ Organisational attention to this aspect of warfare has been consistently inconsistent. Further, the requirement for deep Information Operations expertise is so removed from Defence's personnel management priorities that it is routinely discarded, viewed only as a broadening opportunity. The organisation is stuck in a cycle of experiential learning.

Regrettably, every re-run of this boom-bust approach generates a new series of buzzwords, recreating of doctrine, a new priority threat vector, a new focus on commercial options and, most importantly, the beginning of another period of 'expertise by position'. Since the cessation of the Vietnam War alone, the changes in terminology among Australia's closest allies and partners has become so convoluted that the same terms from 15 years ago have been reborn with new meaning.

It is fair to say that the ADF's organisational approach, born of the Industrial Age, remains ill-suited to wielding informational and moral power in an information age (the fourth wave of the Industrial Age). The organisation simply cannot draw from subject matter expertise that has been developed through a comprehensive career management approach and that is focused on the generation of capability at the joint and interagency levels where successful outcomes are most likely to be generated. Today, a 'just-in-time', 'anyone can do it' approach in the information environment prevails over knowledge, skills and experience developed across a career. However, to be effective in the complex modern operational and information environments, the organisation must be able to generate, sustain and retain the requisite expertise to function proficiently at the operational and strategic levels—the level of warfare where history tells us wielding informational and moral power matters most.

Like their interagency partners, military organisations in Western democracies seemingly focus on the true employment of informational and moral power when faced with an existential crisis. It is often too late for anything other than a reactive response characterised by interdepartmental turmoil when the need is finally realised. The holding pattern between crises is to rely on gifted amateurs (at best), or officers who are no longer otherwise employable (at worst), to fill various Information Operations positions, with limited expectation as to role, function or output. While the ADF has had officers posted to several dedicated Information Operations positions since INTERFET in 1999, there has been woefully little sustained focus on growing Information Operations specialists for those roles. Consequently, the number of truly deep subject matter experts that the ADF can draw on today in Information Operations can be counted on one hand.

Organisationally, the ADF is driven by a desire to separate rather than consolidate its capability to generate effects in the information environment. Dr Patrick Cronin highlights that this 'balkanisation' is also endemic to information environment research, with work focusing on discrete issues rather than overall strategic implications.²⁹ As Cronin observes, '[d]espite the importance of information power in the twenty-first century, this concept's scope is large and difficult to grasp in its entirety'.

The desire to 'chunk down' within the military is likely driven by two things. Firstly, capability development and acquisition processes inherently involve an intra-organisational tussle for funding along Service lines. It is far easier to spend money on 'things' that a Service 'owns' than to spend resources on people, particularly if those people are working in a joint or interagency environment. This preconception is supported by a pervasive belief that increasing capacity beyond the tactical level implies a fighting organisation is bloated, bureaucratic and wasteful. Consequently, within Defence 'things' are the anchor for all funding, and ownership of those 'things' represents success, because they equate to a budget. Justifying the 'things' therefore becomes paramount, with 'people' relegated as inputs to the 'thing's' capability, rather than as a capability in and of themselves. This situation represents a physical power approach to an informational and moral power fight. Defence's decision to, unlike its Allies, not recognise 'information' as a joint warfighting function and instead argue that information is inherent to everything compounds the loss of focus. Most importantly, when the obsession with 'things' is applied to the information environment, it inevitably results in larger purchases being made that take too long to bring into Service. The consequence is that, in a rapidly changing environment, 'signature technologies' acquired by Defence are already well behind the curve before they can be effectively employed.

The second factor that shapes the ADF's inability to wield informational and moral power is a pervasive organisational bias towards 'command'. By dividing a cohesive, multifunctional information capability into its constituent elements (those elements being nearly always small in number and Service aligned), low-level commanders can be appointed to hold the command of these capabilities at the tactical level. This Service-level approach is driven by a focus on physical power. Namely, it supports the preference among physical power commanders to own all the assets they need for the fight they are in. This tendency marries with the prevailing view within the ADF that all fighting occurs at the tactical level.

This organisational bias ensures that management and career development of military personnel within the informational and moral power capability is corralled along existing specialisation/Corps lines. However, the persistent drive to designate 'command' success as the sole marker of value to the organisation, combined with a long-held belief that service on the military staff is to be scorned at every opportunity, is misplaced. This attitude belies the fact that-at every critical moment-senior military commanders and governments have looked outside of this paradigm for a 'fix' when the status quo fails. Of particular concern, it is an approach which ensures that the ADF is never able to achieve the critical mass needed to ensure a dynamic, learning and adapting informational and moral power capability, integrated with physical power. The ADF's approach means subject matter expertise in informational and moral power is undervalued, except at the tactical levels where its effects are inherently limited. In tactical formations, unique subject matter capabilities are generally co-opted to complement the immediate and short-term priorities of those in command. Owning capability becomes more important than employing it.

Further complicating matters is recognition that command traits and approaches developed and perfected through careers to date are somewhat ineffective when applied to a different audience. Specifically, there remains in some quarters a misguided belief that application of inherent skills of communication and influence, perfected in motivating teams, is instantly transferable to the complex array of audiences and groups that operate within the information environment. While understanding, motivating and influencing Private Jones is a critical skill for commanders, it is not universal. To achieve the same levels of influence with individuals whose lives, experiences and values are in stark contrast to their own requires heightened self-awareness and a deeply nuanced, and often uncomfortable, approach.

The simplest example of this tendency can be found in the habits adopted by commanders during 20 years of ADF operations in Afghanistan. Throughout this protracted period, some of the best physical power commanders of a generation remained steadfastly focused on directing activities that would 'make' the Afghan population respect coalition forces better than the Taliban or insurgents. This singlemindedness was always folly given the unique social history of the environment. The futility of the effort, however, did nothing to stop multiple coalition agencies collectively spending millions-if not billionsof dollars in Afghanistan in an effort to achieve the aspiration. As rotation policies allowed for a fresh start every 12 months, the same approach was taken repeatedly. The insistence by commanders on taking a persuasive approach that attempted to change underlying beliefs was divorced from the reality of the target audience's motivations and the stimuli that shaped the information environment. Moreover, it did little to influence, or change the behaviour of, the target audience to enhance the goals of the mission.³⁰ It did, however, play very well to domestic populations of coalition countries. It helped fuel a national sense of 'right' in the continued military intervention, somewhat divorced from the realities on the ground, which remained largely uncriticised until recently.³¹ Put simply, most of the broad range of efforts conducted in Afghanistan intended to inform, educate, persuade and influence the population were unconsciously biased through a development, review and approval system which relegated true subject matter expertise to being an add-on to planning, rather than being integral to its creation and execution. The Afghan population was never going to 'love' the coalition no matter how many shoe racks, wells and water tanks were built. However, these physical actions briefed well at the time.

The current system of enthusiastic inexpertise is enabled by a lack of organisational accountability to ensure tomorrow's commanders are appropriately supported by experts. It ensures the ADF rarely moves beyond mirror imaging itself at worst or adopting a *Lonely Planet* guide understanding at best. The current organisation propagates a system that waits until the next truly existential crisis before the realisation dawns that the greatest success in the information environment is always integrated, coordinated and synchronised through deep expertise, and commanded and orchestrated, at least two or three echelons above the forward edge of the physical battle.

Divided We Fall

'All seem to agree conceptually of the need for better coordination as long as they are the "coordinators" and not the "coordinated".'³² Brett Boudreau, NATO Strategic Communications Centre of Excellence

The desire to divide rather than cohere perpetuates an internal organisational struggle for informational primacy along functional lines. At different times, the major players—cyber, electronic warfare, military public affairs, civil–military cooperation and psychological operations—have all found reasons to assert their supremacy to justify 'ownership' of the information environment and the orchestration of informational and moral power. If the struggle for ownership fails, they then seek to operate outside existing structures, process and authorities to justify their retention of specific capabilities regarded as being 'more special' than others. Recently this division has begun to occur between technical and non-technical fields, introducing even more lexicon, friction and confusion around what should be a coherent single-capability domain.

In some cases, organisations have attempted to address these issues by creating hybrid approaches, blending elements of several capabilities such as occurs in the practice of strategic communication—without tangible outcomes. The creation of the Information Operations profession in some military forces perhaps came closest to success. Even in the largest organisations, however, efforts to achieve coherence have been hamstrung. Consequently, true specialists have been left feeling responsible for everything, but with accountability for nothing more than a twice-daily update to commanders. This burgeoning divergence contributes to ongoing organisational perceptions that deep technocrats should command efforts to influence thinking humans, regardless of their attainment or otherwise of comparable life experience. Additionally the informational and moral power capability will likely continue to flounder while specific capabilities, supported by agreed force structure 'things', prosper in isolation. The last 20 years has highlighted how this approach has repeatedly turned Brigadier Dudley Clarke's war-winning planning maxim—ask what we want the enemy to do, not what we want the enemy to think³³—on its head. The focus has for the most part been the opposite, seeking persuasion instead of influence. This situation will only reinforce an organisational drive for tactical employment and focus.

At a workforce level, this approach means that while the organisation may be able to grow capability specialists, it will face ongoing personnel retention difficulties because of the limited value placed on them beyond tactical employment. It neglects the requirement to maintain breadth and depth of experience to succeed as an information environment generalist at the operational and strategic levels. It is also limited by a career management system where physical power attributes are the discriminator for senior roles. Indeed, the system is yet to recognise that to effectively wield informational and moral power at the higher levels requires exposure, experience and education (Part 2 of this paper suggests a possible way ahead). In a resource-sensitive environment, focused on reducing personnel costs, core military professional education (such as attendance at staff college), which is so crucial to the successful integration of the informational and moral power workforce, is the exception rather than the norm. This is despite a requirement for the Information Operations workforce to operate at the strategic level much earlier in their military careers than many other officers. Without an effective career model to generate an operational and strategic-level information generalist from a tactical information related capability specialist, the ADF has attempted to fill the gap with amateurs from the broader Defence workforce and hoped for the best.

Adventures of a Possibly Gifted Amateur

'We have thousands of amateurs who are trying their untrained best to resist the attacks of the highly trained professional Communists.'³⁴

Committee on Un-American Activities, 1964

There is a truism across more than two decades of the ADF's Information Operations effort that the first two years of any posted officer's employment in a role have predictable hallmarks. Specifically, the first three to six months are enthusiastically spent, wide-eyed, trying to understand aspects of the role that are beyond the officer's previous professional experience, while simultaneously seeking to prove that the job requirement is no different to whatever has dominated the individual's career to date. Be it fires, manoeuvre, survivability, communications or collection, new officers will inevitably hunker down and seek to reduce informational and moral power to the tactical experiences that have worked well for them before. Unfortunately, there is almost never a cohort of deeply experienced senior non-commissioned officers to guide them. In the absence of a mentor, the tendency is to default to operational and strategic approaches, taught on very short 'qualifying' courses, and then to try applying them within a tactical comfort zone. Inevitably, this approach has limited success. At some point late in this initial three- to six-month period, most officers realise that little is working out as they wanted it to. The next six to 12 months are spent furiously trying to reassert a level of control over an information environment that is simply impossible to achieve. Risk becomes an excuse for inaction in situations in which the true risk is neither really understood nor defined. Every variable becomes inordinately critical and must be closely coordinated. In response to uncertainty, the officer's focus ultimately falls on the perceived need to micromanage various capabilities because they are the only controllable element. Demands to 'message harder' and lamentations that 'we are losing the narrative fight' are characteristic of this period.

Being a tactical-level Information Operations officer poses inherent challenges because, inevitably, the officer cannot achieve the demands or requirements of their immediate commander. At times, those demands are built on a common but misplaced belief that all informational and moral power functions can be achieved by one person with a smartphone. Further, the Information Operations officer is nearly always at odds with the tactical commander's other principal staff who offer key and useful input concerning effects within an assigned tactical area of operations. The situation becomes particularly acute when the tactical commander's expectation is that the informational and moral power effort will operate to enhance the force protection of soldiers, sailors or aviators when, in reality, this outcome is often not the priority in the information environment. Indeed, the two objectives can be entirely at odds. This occurs, for example, when the Information Operations plan supports the conduct of a clinic and building infrastructure in a remote village during the day, while the physical power plan involves a different force element returning to the location the same night dragging the very same villagers from their beds, often harming several people in the process. In such situations, convinced that Information Operations specialist capabilities are not setting the mission up for success, the frustrated tactical officer's point of concern shifts to a higher headquarters to resolve the problem.

With the frustrations of approximately 18 months now behind the Information Operations officer, the last six months of a two-year posting are spent attempting to 'fix' the whole-of-government system that is clearly stymieing the functions that should or could be done by the ADF. To support their convictions, many such officers are tempted to resolutely detail what other nations are doing in the information environment, usually those that form the basis of the West's adversaries, without recognition that to adopt those methods and processes would throw Western democratic governments on their heads. Such efforts nevertheless generate a drive for new terminology and doctrine based on what potential adversaries do or have done at best, or on some misplaced marketing ideal at worst. These misguided efforts gain traction through exploitation of the regimental system of patronage that exists within the ADF (and like-minded Western military forces). Despite all the issues of the posting, hubris leads the officer to declare that the position is essentially a job for their parent specialisation or Corps. And then, as quickly as they arrived, they are gone, only for the cycle to start again. It is unfortunately the perfect and continued manifestation of the Dunning-Kruger Effect. Based on the author's experience, there is now more than 20 years of 'development' across the Information Operations field in the ADF thatwhen plotted-resembles a handsaw blade with regularly spaced peaks and troughs. In this schematic, no peak or valley is outsized compared to those that preceded it and, in most cases, any development that occurs is limited to the length of a posting cycle. The only aberration occurs when an individual stays engaged in the field for longer than a single posting. It is at this point that true learning, adaptation and development occurs.

Information Is Power

'There is only one true Information Operations "capability" a well-trained, educated, and practised Information Staff Officer.'

> Austin Branch, Senior Director Information Operations, Office of the Secretary of Defense (Policy), 2010–2013

Today, the ADF is called upon to operate within and through an environment that is more informatised than it has ever been and is evolving at speeds that exceed organisational developments. As a result, tactics, techniques and procedures that were successful in ADF operations conducted a decade ago against a specific threat now pose a significant risk to mission should they be employed again. One need only peruse the active body of 'open-source analysis' (performed by individuals, groups and even adversaries) to understand that the protections offered by the vastness of the internet are no longer there. The speed of development and the widespread use of the information environment by the myriad actors influencing military operations is difficult to truly understand unless there is a deep and enduring focus. When considering and employing informational and moral power, there is no longer a simple Red versus Blue equation. A true practitioner is essentially glued to various methods of monitoring the information environment to detect changes, trends and issues-stepping away for even a few hours requires a period of recalibration on return.

Key to the successful application of informational and moral power is the recognition that it is not always a supporting effort to physical power. Instead, all components of Australia's military power must be given equal consideration and weighted appropriately. There must be a recognition that fighting in—and through—the operational and information environments simultaneously is not just aspirational but essential. Integrating, coordinating and synchronising actions and effects through these environments, and across levels of command, is the epitome of multi-domain operations. In such operations, protagonists fight on all fronts simultaneously—tactical actions for immediate tactical gains as well as orchestrated tactical, operational or strategic action for broader strategic effect—often within the information environment. Realising informational and moral power requires investment in well-trained, educated and practised information staff officers who can ensure the planning, application and management of such power is based on more than a best guess. To ensure that the ADF starts further along the experiential pathway, career management processes need to be re-engineered so that expertise and experience is harnessed, valued and, most importantly, actively overseen. This is the only way to ensure that operational and strategic commanders are supported by the right staff officers, not just any staff officers. Most importantly, in achieving the Department of Defence's mission to advance Australia's security and national interests, it is these individuals who can create significant positive impact among interagency partners who are in no way resourced to the level of Defence.

Defence must focus on cohering rather than dividing the broader information capabilities for best effect. The way to achieve this is to ensure that personnel have a career pathway that advances their employability within the information environment so that they can progress from tactical capability specialist through to information environment generalist supporting the highest level of joint command and interagency decision-making. It is clear that the ADF neither wants nor needs another Meinertzhagen. The focus must instead be on creating, sustaining and retaining the right people who are true experts in their unconventional field.

Part 2 provides options to achieve this outcome.

Part 2—Adaptation Is Success

'The absence of plans and policies cannot be compensated by whatever psychological instrument.'

> Matt Armstrong, Governor on the Broadcasting Board of Governors (now the U.S. Agency for Global Media), 2013–2017

The 'Haversack Ruse' discussed in Part 1 of this paper remains an important case study for the Information Operations community, but for different reasons than Meinertzhagen had the world believe. The popularised single event was only part of an overall Information Operations plan that took place across several weeks. It involved closely integrated, coordinated and synchronised actions occurring in the enemy's rear security areas, within the regularly patrolled zone between Allied and Ottoman positions, and within the terrain controlled by Allenby's own forces. The plan was far more than a heartfelt 'letter from a new mother', a half-eaten sandwich and some fresh horse blood as recreated in the movie The Lighthorsemen. Lieutenant Colonel Belgrave's small team orchestrated several physical actions including multiple pieces of compelling evidence to shape understanding, including creation and dissemination of orders reacting to the 'loss' of sensitive materials. To strengthen assessments, Belgrave's team simulated message traffic and radio signals that could be analysed by the Germans supporting the Turks. The deception also involved several follow-up patrols to search for the haversack, and the seeding of rumours on both sides of the fight and through the local population. This cumulative effort created a vast net of unwitting participants who lent credibility to the core idea and stoked the

very worst trait in Ottoman analysts and commanders—confirmation bias. One of the clearest (though not specifically planned) indications of the effort's success was the reported complaint of an Allied prisoner of war who unleashed his view that it was completely unfair he had been captured while out looking for a sensitive notebook dropped by an idiot officer.³⁵

The broader Beersheba information activity is a case study of effective integration of offensive physical and informational elements of military power, orchestrated from a higher headquarters. This was the work of a quality staff who understood both the operational and information environments and how they could be harnessed, or exploited, to support and enhance a plan approved by the accountable commander. Of note, Belgrave's team had responsibility for all phases of the operation including its planning, implementation and assessment. It was a plan designed to generate first-, second- and third-order effects by setting the conditions for a broadly understood subsequent manoeuvre phase, rather than an effort to enhance an already planned-in-detail physical activity. The 'bodyguard of lies' to protect the true intention of Allenby's planning was as important as the 'bullhorn of truth' to establish the context through which the ploy was enacted. Hindsight would indicate that the Turks, with their superior local knowledge, never fully fell for the ruse. Nevertheless, it is likely that the plan generated just enough doubt and friction between the German and Turk commanders to ensure they did not exploit that knowledge to the potentially great cost of the Australians. The Lighthorsemen also created some of their own luck with their courageous charge when the Turks failed to fire the reserve demolition charges on Beersheba's vital wells. It allowed for capture of this important water source, and it set the conditions for success of subsequent operations to secure Palestine.

Generating a Lieutenant Colonel Belgrave with the requisite skill to operate in the contemporary information environment is a challenge facing many Western militaries. Equally important is the capacity to support such an officer to progress through the ranks of Colonel, Brigadier and perhaps beyond, particularly in periods outside of conflict. This is because it is at these higher ranks that the value of deep informational expertise comes to the fore in the department and within the broader interagency national security framework. Enabling another Major Meinertzhagen remains dangerously simple. Defence already has several positions earmarked at these higher rank levels that are nominally focused on integrating effects and the development of informational and moral power. These same positions, however, are routinely filled by officers with physical rather than informational power expertise. Systematically electing a Belgrave for such roles, with the ability to plan for effects in the information environment, closely integrated with action in the physical, requires a new approach to career management. Achieving this would signal an organisational recognition that doing the job well requires deep knowledge of elements and capabilities currently stove piped across disparate structures, as well as the institutional curation of 'corkscrew' thinking. Creating a Brigadier Dudley Clarke, an officer who progressed from Lieutenant Colonel to 1-Star in the military deception field, should be the aim, not the aberration.

Challenging the Status Quo

'The way we (the joint force) view ourselves and think (Service cultures) overlays the use of operational art (planning and operating) and seems to produce a fairly predictable range of planning outcomes that inhibit our ability to competently leverage information.'³⁶

> Scott Thompson and Christopher Paul Joint Forces Quarterly, 2018

Before the bureaucratic fight for budgets dominated debate, government agencies in the West focused on fusing the instruments of national power. As early as the immediate aftermath of World War I, strategic thinkers were seeking ways to inculcate a comprehensive, whole-of-government approach to the application of national power. Their approach was not to divide by 'ownership' but to better integrate and cohere around desired effects. These elements became the organising framework for the US Government's burgeoning intelligence enterprise. Understanding the psychologic aspect of warfare (what is today considered as part of the information environment) was as important as assessing structures, capabilities and funding. Supporting this viewpoint, an October 1918 study by the Military Intelligence Division of the General Staff concluded '[t]he question of winning the war is far too complicated and far too delicate to be answered by a study of only the powers and resources of the nations in arms'.³⁷

For much of the past 50 years, debate around the application of national power has been undertaken within a conceptual framework bounded by DIME. DIME is the long-held approach to articulating the instruments of national power-Diplomatic, Information, Military and Economic. In his research, public diplomacy professional Matt Armstrong asserts that the appearance of the DIME framework in the 1980s was 'almost magical', with no clear claim of creation on the public record.³⁸ Regardless of its precise origins, the aspiration was for the DIME construct to support four US federal agencies to more closely coordinate at the national level for strategic effect-State, Information Agency, Defense, and Treasury. In reality, the department with the most powerful mandate and greatest budget predominantly wielded influence. Therefore, the DIME construct supported de-confliction more than cooperation. The absorption of the US Information Agency into the Department of State in 1999³⁹ has, with the passage of time, left this important function underdone. DIME simply operates to reinforce an inherent desire by individual government agencies to own and budget for activities.

In recognition of the limitations of the DIME construct, alternative conceptual frameworks have been considered to orchestrate the application of national power. In 1919, a three-year study by the US War College reported to the Secretary of War and Secretary of Navy 'that in the "strategic equation" of war there are four factors—combat, economic, political, and psychologic— and that the last of these is coequal with the others'.⁴⁰ These factors were subsequently revised and reframed as a 'Strategic Index' comprising Politics, Psychologic, Combat, Economic —PPCE.⁴¹ Unlike DIME (which maps to executive agencies of government and indirectly assigns lead and 'ownership'), PPCE maps to elements—or effects—that must be considered in a synergistic way to wield national power. Dusting off PPCE to replace DIME could offer an approach that puts informational and moral alongside physical and intellectual elements.

In Australia, the need to reconceptualise the concept of the military component of national power is self-evident within an organisation charged 'to defend Australia and its national interests in order to advance Australia's security and prosperity'. Defence's contribution to national power is more than just the 'M' in DIME. For success, it is critical to integrate, coordinate and synchronise with other parts of government, allies, and partners to ensure Australia effectively uses information and moral power as part of that instrument. To do so effectively requires a level of professional specialisation among military and departmental personnel that is not generated and sustained to any level of capability or capacity in Defence.

Concerningly, questions about how to generate an effective Information Operations capability within the ADF still pose significant questions for the organisation as a whole, and for the Services in particular. After all, it is the Services that are responsible for the ADF's people, not the nominal lead of the Information and Cyber Domain. These questions include:

- Does the ADF need to be able to wield informational and moral power with the same adroitness it has achieved through its long experience in orchestrating and applying physical power?
- If it does, how should it organisationally ensure it has both the capability and capacity to operate in—and through—the information environment with a degree of professionalism?
- How does a military capability in a Western democratic nation ensure it actively contributes to the information instrument of national power, the 'l' in DIME⁴² without conflicting with the very nature of the societies in which we live?

If the ADF's defined role is 'to apply military power in order to defend Australia and its national interests', the answer to the first question is surely yes. Military power without appropriately weighted offensive physical, moral and informational aspects is simply not national 'power' of the nature that is required in the complex, connected and contested world of today.

Yet even this core understanding may not be widespread. The recently released capstone *Australian Military Power* doctrine was developed four years after the ADF created an Information Warfare Division. Further, it was published more than 20 years after the introspective series of reviews that followed INTERFET re-highlighted the importance of operating in and through the information environment. Yet this capstone document is silent on how informational power is integrated to enhance the ADF's military power, and on how the military contributes to the broader national power effort. Rethinking how we 'fight and win' through application of military power inevitably demands a revision of how the ADF conceives itself as the military instrument of national power.

To move beyond the status quo, military power needs to be reconceptualised as a 'quartet' of elements that are focused on will, building on the 'troika' proposed by *Australian Military Power*—i.e. intellectual, moral, physical, and the introduction of informational power. Importantly, the articulation of a military power quartet must be linked to war and warfare and described in terms of the effects that each element generates against target systems or target audiences (to either safeguard our own will or fracture the adversary's). For example:

Intellectual Power provides the knowledge to fight and win. Intellectual power comprises the ideas, concepts, organisational lessons, and knowledge captured within Defence doctrine. It encompasses 'how' the ADF prepares for and employs force using the capabilities inherent to the organisation and integration with allies and partners for greatest effect. Intellectual power is predominantly a defensive element focused on achieving third-order (cognitive) effects among members of the ADF, allies and partners to safeguard friendly will. It is primarily generated through the Information and Cyber Domain and is reinforced through action in the physical domains.

Moral Power establishes and sustains legitimacy for the decision to fight and win. Moral power generates and sustains fighting cohesion by establishing and sustaining the lawful, ethical and moral reasons for the use of the military instrument of national power. It explains 'why' the ADF is employing force. Moral power is predominantly a defensive element focused on achieving third-order (cognitive) effects among members of the public, the ADF, allies, partners and the international community to safeguard friendly will. It is primarily generated through the Information and Cyber Domain and is reinforced through lawful, ethical and moral action in the physical domains.

Physical Power provides a means to fight and win. Physical power encompasses those capabilities that can create physical effects on the adversary and the operational environment. It encompasses 'when, with what, and where' the ADF is employing lethal and non-lethal force. Physical power is an offensive element focused on achieving first- and second-order effects against adversary capabilities to fracture will. It is primarily generated through the Maritime, Land, Air and Space domains and it is enhanced through action in the information environment.

Informational Power provides a means to fight and win. Informational power encompasses those capabilities that can create informational effects on the adversary and the operational environment. It encompasses 'when, with what, and where' the ADF is employing lethal and non-lethal force. Informational power is an offensive element focused on achieving first- and secondorder effects against adversary understanding to fracture will. It is generated predominantly through the Information and Cyber Domain but can be enhanced through actions in operational and information environments.

As highlighted in Part 1, this approach is not new. It was core to Clausewitz's writings: 'When we speak of destroying the enemy's forces we must emphasize that nothing obliges us to limit this idea to physical forces: the moral element must also be considered.⁴⁴³ Similarly Sun Tzu's writings are replete with the requirement: 'A clever general, therefore, avoids an army when its spirit is keen, but attacks it when it is sluggish and inclined to return. This is the art of studying moods.⁴⁴⁴ Likewise Japan's Miyamoto Musashi highlighted a series of tactics in his 'Book of Fire' to physically, psychologically and morally dislocate an adversary:

In large-scale strategy we can use your troops to confuse the enemy on the field. Observing the enemy's spirit, we can make him think, 'Here? There? Like that? Like this? Slow? Fast?' Victory is certain when the enemy is caught up in a rhythm that confuses his spirit.⁴⁵

To succeed in the complicated environments of today and tomorrow, the ADF must be able to harness the greatest understanding of the information environment to ensure commanders effectively wield military power.

#influencing #winning

'How has one man in a cave managed to out-communicate the world's greatest communication society?⁴⁶

US Defense Secretary Robert Gates, November 2007, paraphrasing an editorial by Ambassador Richard Holbrooke, 2001

When the coalition entered the 1991 Gulf War, the world was in awe of the potent Information Operations campaigns that unfolded on nightly news bulletins. Before the commencement of the ground assault phase. USAF B-52s worked in close collaboration with US Army Psychological Operations troops to influence the shape of the coming battle. Strikes by a three-ship cell on defensive positions were preceded by leaflets advising Iragi troops they were soon to be targeted by the USAF's largest bomber. Another leaflet-drop following the strikes advised surviving defenders the aircraft would return the next day. And so it continued. Leaflets, bombing, leaflets, bombing-a hell storm of high explosive and paper on exposed defensive positions. These leaflets, together with radio broadcasts, would specify which individual Iragi unit or units would be targeted by the strikes. By the start of the ground war, as many as eight B-52s were dedicated to these missions.⁴⁷ Their strikes punched holes in select Iragi defences and allowed for the rapid action that Desert Storm planners desired in the breakthrough to Kuwait. The US exploited violent actions with supporting information within a campaign built around sequencing elements of physical power. The information elements were tactically focused but orchestrated operationally and designed to set the conditions for, or to exploit, a specific element of manoeuvre or strike. The early successes of this approach saw a desire for more—so much so that, by the time the War finished 43 days later, 29 million surrender leaflets had been dropped on Iragi lines, supported by constant broadcasts from US-controlled radio stations.⁴⁸

The coalition's approach to Information Warfare generated significant tactical success in patches of desert at a decisive point in the (very short) war and probably contributed to the rapid retreat of remaining Iraqi units. Based on POW reporting highlighting the coercive effect of the B-52 strikes, the basis for coalition success was clearly the physical action supported by information specifically identifying the B-52 threat. This conclusion is reinforced by a similar experience in 2003. In a situation in which the location of Iraqi Army units in towns and cities precluded the

mass use of unguided weapons, the widespread dispersal of surrender leaflets saw soldiers fade into the population, only to return as the much-vaunted Fedayeen.⁴⁹

Western militaries are only now beginning to adapt to the rapid advancements in influence after nearly 15 years of fighting violent Salafi jihadist insurgents. 'Out-communicated', Iraqi forces battling against the Islamic State from late 2014 were woefully unprepared for the shock of the 'Special Operations of the Islamic State'.⁵⁰ The Islamic State's media department unleashed a comprehensive informational power assault in advance of the operation to secure Mosul. #AllEyesOnISIS / #خرمنا_قرمنا_قرمنا_مرايا قرودلا_قرمن: was launched on 19 June 2014 in a new digital version of 'Shock and Awe'. Authors Peter Singer and Emerson T Brooking describe the orchestrated action as 'taking on the power of an invisible artillery bombardment, ... messages spiralling out in front of the advancing force'.⁵¹ The Iraqi Security Forces were routed, with Mosul falling in less than a fortnight.

More recently, the minds of Afghans were dominated by a similar informational preparation of the operating environment as the Taliban seemingly appeared from all sides. While detailed analysis is yet to be conducted, initial reporting highlights the significant role of informational power in the Taliban's success. An Afghan National Army officer described sophisticated Taliban psychological operations as responsible for much of the collapse of Afghanistan's military. A concerted effort to seed rumours of a deal between President Ghani's government and the Taliban, to hand over large portions of the country while Kabul was spared as a city-state, were reinforced with video and images. This media campaign swelled to a crescendo well before 15 August 2021, when Ghani fled the country and the Taliban took control of Kabul. The rumours were fortified in the minds of Afghan troops in the outer provinces when support requested from the government failed to arrive. Trust in the organisation they served was fractured and concern for the security of their families became dominant. The cumulative effect of this informational fight left one Afghan officer lamenting that 'we aren't losing our forces in the fight anymore, they are just changing their clothes and putting their guns down'.⁵² The Afghan Government and military failed spectacularly in sustaining or enhancing moral power. The Taliban were equally spectacular in wielding informational power.

In both Iraq and Afghanistan, well-organised insurgent groups demonstrated their capacity to effectively integrate informational power with a suite of low-tech information-related capabilities. These were coordinated and synchronised into a broader plan to generate the decisive psychological effect—an understanding of the inevitability of loss to break the defenders' will. The actions were planned and executed at the highest level of insurgent command, with capabilities to enhance the effect within the information environment attached to the forces that were fighting with physical power. The information combatants had clear tasking and objectives, with an established process to ensure outcomes could be achieved quickly.

Iraq and Afghanistan represented a masterclass in how to effectively deliver very basic informational power tailored to a well-understood and analysed target audience. As Singer and Brooking detail:

The Islamic State, which had no real cyberwar capabilities to speak of, had just run a military offensive like a viral marketing campaign and won a victory that shouldn't have been possible. It hadn't hacked the network; it had hacked the information on it.⁵³

Most significantly, in causing mass desertions from a professional fighting army, these actions were almost the opposite of the West's most storied efforts.

The Islamic State and the Taliban directed a desired strategic information effect that they reinforced and enhanced with a series of localised tactical violent actions. The effect was to generate a self-reinforcing wave of concern, well beyond the immediate conflict area. The insurgent groups created a narrative and carefully curated its spread and growth through well-understood target audiences. Finally, and perhaps most importantly, insurgents identified and used existing and highly effective communication channels allowing for precision and subtlety. The US powerfully introduced new communication channels to the environment requiring brute force and mass for messaging. While the desired effect, desertion, was similar in all three cases, it was the insurgents who exploited an existing critical vulnerability. The US created the vulnerability to conform to the physical power plan.

In his study of insurgent and revolutionary employment of propaganda, Dr Neville Bolt argues that the internet age has enabled a radical shift in terrorist use of propaganda which supports focused and detailed planning based on comprehensive knowledge of the information environment.⁵⁴ Bolt contends technology has enabled strategic rather than tactical effects. Terrorist and insurgent groups now make plans based on the violent image they will portray, rather than simply exploiting those events following action. This change has shifted the weight of propaganda from exploitation of violence directed against the insurgent or terrorist group or what they stand for—an explanation and justification of why the group has resorted to violence (moral power). Instead, the focus is towards a phenomenon of ultraviolent propaganda directed towards the brutal actions of individuals aligned to the cause—a reinforcement of the power of the group (informational power). Planning for effect is at the core of this approach. Their successes in this era have been observed by all.

Relevantly, Admiral William McRaven's seminal study of special operations theory and practice⁵⁵ highlights six principles common to successful unconventional action—simplicity, security, repetition, surprise, speed, and purpose. The principles apply to the detailed planning that is the hallmark of successful special operations. It is this detailed planning and approach that led Craig Whiteside to label the Islamic State's Media Department as its Special Operations.⁵⁶ A common foundation of Special Operations and Information Operations is that both are most successful when they are orchestrated echelons above the forward edge of the battle.
The Right Stuff

'It is necessary to remember, in the first place, that this war is not one that is being fought by the military forces alone.'57

> United States General Staff, The Functions of the Military Intelligence Division, 1918

The key to effectively wielding informational power, and generating and sustaining moral power, is planning and orchestrating action at the right level, and ensuring decisions are informed by deep assessment and analysis. Good planning requires an intimate understanding of the environment, the capabilities that can be brought to bear and the threat. Most importantly, it is essential to have a clear-headed understanding of risks, real and perceived, unique to the information environment. This is because the complexity of borderless battlespace includes much more than just the friendly, enemy and non-combatant participants resident in the area of operations. In the face of a hyper connected foe, the requirement for specialist information environment planners is self-evident. Sprinkling informational power on an already developed physical power plan will only ever support tactical outcomes.

The ADF's collective experience in Combined Joint Task Force-Operation Inherent Resolve (CJTF-OIR) is a case in point. Very early in the coalition commitment, a small, highly gualified and proficient ADF team was embedded into a larger US Military Information Support Task Force working at the strategic level. The skills and experience of the small number of Australian Army specialists were quickly realised and they were employed in the organisation's plans area. The task force was responsible for developing one of the most effective coalition psychological operations of the warenabling the lethal targeting of an identified critical vulnerability in the Islamic State's illicit oil revenue generation. Weeks of work and preparation enabled two days of airstrikes under Operation TIDAL WAVE II⁵⁸ decimating a sophisticated finance stream by destroying more than 116 oil tankers and associated infrastructure in an opening phase of an expanded targeting effort.⁵⁹ The informational power with which the wider operation and strikes were integrated ensured they occurred in a way that enabled Islamic State-coerced truck drivers to escape to safety, reducing non-combatant casualties. Because of this concerted effort, the Islamic State was forced into backyard oil production and transport of 44-gallon drums in the

Abu Kamal region, significantly impacting revenue generation to finance their increasingly expanded areas of control. For the very next rotation of the Australian commitment, personnel were pulled out of the strategic headquarters and deployed instead within a tactical headquarters where they focused on enabling manoeuvre of coalition forces across a bridge as part of the advance in Ramadi. Both actions were of immense importance to the commander where the team was assigned. Only one, however, had immediate strategic effect on the war effort.

If the ADF is to truly claim the information advantage the organisation has long yearned for and the Australian Government demands, tweaking the edges of existing form and function will be inadequate. Reform, rationalisation and, most importantly, ritual slaving of sacred cows, Corps structures and ownership must occur to create what is truly required. In response to Secretary for Defense Robert Gates's concerns, and compounding observations from the fight in Iraq and Afghanistan, the Allied Information Operations community invested significant collective effort in thinking about organisational and personnel requirements to address the issue.⁶⁰ In essence, the team sought to answer a simple question: What does the optimum Information Operations officer/soldier/ sailor/aviator of 2025 look like and how do we get there? Over the course of several months, the desired knowledge, skills and attributes of an information environment generalist vice an information-related capability specialist was developed with a clear path from one to the other. Through this work, the team identified five core areas needed to excel within a military and interagency context. These characteristics can be summarised as follows.

Firstly, deep specialised knowledge across several existing informationrelated capabilities is a crucial underpinning. In the same way that learning the intricacies of platoon or troop leadership in more than one area is critical to wielding physical power later in an arms-Corps officer's career, deep understanding of at least some specialist capabilities (and how they are employed) is crucial for the new breed of information staff officer. Similarly, it is key for soldiers, sailors and aviators to know how their specific skills can be employed in areas beyond their current employment. Noting the interconnectedness of today's operating environment, this depth of knowledge can be tailored along either the human or technical/systems lines, but they should not be mutually exclusive. In the human terrain focused endeavour, elements of Military Public Affairs, Psychological Operations, Military Deception, Civil-Military Cooperation (CIMIC), Gender, Religious Operations and Operations Security are all critical. On the technical side, Cyber and Electro Magnetic Spectrum Operations (in defensive and offensive capacities), and Operations Security are key. The benefit of broader experience comes to the fore at higher levels where the inherent constraints on capabilities and how they are effectively, legally, morally and ethically employed have a direct bearing on overall mission success. It is as much about what *cannot* be done as it is about what *can* be. More importantly, inputs across planning and execution are enhanced when decision-makers understand when and why a capability, or group of capabilities, should be utilised for greatest effect.

The second core area is planning. *Creating an information advantage is all in the planning*. In his review of the Political Warfare Executive (PWE) days, Garnett singled out the importance of contingency planning, with a specific recommendation that any future effort 'should include a staff of planners, who should prepare plans for probable contingencies'.⁶¹ However, the planner must also be able to integrate across the organisation in order to orchestrate. Adapting specific informational and moral power requirements to the existing, agreed organisational planning process is the only path to success. Creating a bespoke system that attempts to sit alongside existing frameworks will simply perpetuate current issues and may ultimately lead to fratricide in the information environment, the operational environment, or both.

Scott Thompson and Dr Christopher Paul highlight that military staff work must change to ensure desired outcomes are represented in physical and informational terms. In their view, '[i]f commanders express objectives and endstates in terms of actions and behaviours of relevant actors, the connections between tactical actions and strategic results become clearer'.⁶² The issue is unfortunately not unique to Army, the ADF or Defence. Thompson and Paul conclude that in the contemporary US Department of Defense 'organizational culture and planning systems are virtually blind to the proper importance, role, and function of information'.⁶³

Information staff officers need to be able to plan to the level of detail required for their domain and effectively contribute the right information to the broader staff and commander, who are focused on multi-domain integration. Most personnel in a planning group will focus on defining tasks—articulating what organisations or capabilities should do. The informational and moral power planner approaches the problem from another perspective, with a focus on what effect is to be achieved on adversary decision-making and in the information environment. Physical power planners focus on sequencing first-order effects with a view to possible second-order consequences in order to inform branches and sequels while conforming to the direction provided from a higher headquarters. By contrast, informational and moral power planners focus on third-order effects, including how action and reaction across domains leads to cognitive understanding in various target audiences. When this 'attack a problem from both sides' approach works on a planning staff, it hums. To be effective it requires complete orchestration in planning, not simply seeking to employ informational and moral power against an already agreed physical power plan.

The third core area is *managing execution*. In the same way that the ADF has an organisationally agreed planning process to guide efforts, a similarly agreed process exists for execution-known as targeting. The six-step targeting process ensures the application of effects is legal, moral and ethical. Delivering joint fires is only one step of that effort. Ensuring a single process for lethal and non-lethal effects created by kinetic and non-kinetic action is critical for time management alone. Within a modern, minimally staffed headquarters, the more space that is made available in the battle rhythm, the more work that can be done to get ahead of current events. It is pointless to have an approvals system that perpetuates an organisational divide between, and duplication of work by, the 'carnivores (kinetic) and herbivores (non-kinetic)' (as one famous US warfighting general so ineloguently described his staff in Iraq). Importantly, it limits the information fight to one characterised by reaction, with no capacity for pre-emption. Identifying opportunities, assessing risk and then seizing the chance requires a single execution process.

Most importantly, to meet the challenges posed by the complex fights of the future, it is vital to generate adequate specialist staff to manage the execution of operations and to provide advice to commanders. Two-week exercises do not replicate the demands of complex operations on a complete staff. Those embedded in US Headquarters for the past 20 years, particularly at key points in the campaigns, understand the folly of having the Fires Direction Centre also responsible for longer term influence when a period of intense offensive support coordination is required. In these situations, informational and moral power is inevitably relegated to a focus on mitigation because the demands associated with safely and legally applying physical power require full attention.

Much headquarters friction can be overcome by using echelons of command correctly rather than placing all responsibility on tactical commanders. During 2004's Operation AL FAJR to retake Fallujah, the tactical element (1st Marine Expeditionary Force) focused on manoeuvre as its main effort, while the operational headquarters (Multi-National Corps—Iraq, provided by the US Army III Corps) focused on the integration and synchronisation of fires. It was the strategic headquarters (Multi-National Force—Iraq, predominantly based on the US Army's 3rd Army) that held the information environment as its main effort. During the headquarters' final rehearsal of conduct drill, the then Chief of Operations at Multi-National Force—Iraq, Australia's Major General Jim Molan, saliently reinforced that 'Strategic Communication is the main effort'.⁶⁴

Fourthly, there is and always has been a very close association between some of the roles traditionally held by intelligence organisations and those seeking to generate effects in the information environment. This is one reason why the ADF's Psychological Operations capability currently sits within the Australian Army's Intelligence Corps. Indeed, Lieutenant Colonel Belgrave and offsider Captain Neate (the true heroes of the 'Haversack Ruse') were badged Royal Artillery officers but were under long-term secondment to the Intelligence arms when they planned and executed their efforts in advance of the 4th Australian Light Horse.

The fundamental analysis skills taught to the intelligence community are critical to the information environment workforce as they seek both to monitor the environment for situational awareness and to delve deeper to best understand target systems, target audiences and even the characteristics and traits of individuals. Likewise, advanced understanding of the information environment, and condition changes observed within it, are also critical to intelligence assessment. But there is something unconventional about the intelligence required to wield informational power that often requires more than just seeking answers from an existing function aligned to physical power requirements.

Good planning of informational and moral power demands more than is normally provided in an intelligence brief as part of the broader planning group. In much the same way as the best commanders seek to develop a deep understanding of the enemy to best inform decisions during flow of battle, information staff officers need to intuitively understand condition changes in the information environment and how they can be exploited or mitigated. This requires a hands-on approach, often juxtaposing open-source information with highly classified intelligence to understand the true effect. Thompson and Paul go so far as to proffer that the deep target audience analysis undertaken by Psychological Operations personnel is a solution to enhancing the predominantly physical approach to preparing intelligence briefs to support mission planning.⁶⁵ Adding in the understanding of different non-combatant actors developed through Civil-Military Operations, and the current coverage in the media and in online conversations prepared by Military Public Affairs, makes for a superior understanding. Instead of outsourcing the requirement to an overworked intelligence shop, it is far more productive to incorporate what the information-related capabilities already do to support the greater understanding of a Joint Force.

Finally, underpinning it all is *the necessary theoretical understanding of applied influence.* This broad body of research is part psychology, part communication, part leadership, part sociology and part technology. It must be applied almost uniquely in each circumstance, and it is an academic body of research that never ceases. Staying on top of best practice is itself a full-time job. This theoretical underpinning is critical because the advent of troves of readily available open-source material has generated a business model in 'influence peddling' that is not always legal, ethical or moral. It is often an expensive social media scrape with almost no true analysis but organisational watermarks claiming 'ownership' of publicly available material. The theoretical underpinning is what differentiates a gifted amateur from a true specialist. It is the key ingredient in ensuring that the ADF's contributions to coalitions are highly valued. Most importantly, it is how Defence increases its value in the interagency environment.

Conclusion

*'C'mon, stop trying to hit me and HIT ME!'*⁶⁶ Morpheus to Neo, The Matrix, 1999

Defence knows broadly what 'right' looks like and has done for some time. The critical unresolved issue is how the organisation can adapt to generate the information advantage it currently lacks. The last metre of the information environment fight is the most difficult because it requires organisational change. Put simply, if Army, the Australian Defence Force, Defence or the interagency national security group are to generate information advantage at any level above supporting tactical action, it is necessary to invest more in people to ensure they are best prepared for the task required of them. The ADF is currently in a unique situation where a clear operational requirement to wield informational and moral power is divorced from its Service-led personnel management system. Reflecting the lack of focus on informational and moral power in Major General Hocking's recent report on Afghanistan, years of conflict as a junior partner in coalitions has placed the organisation in a unique experiential situation, directing our focus towards almost solely communicating with the Australian public. The lessons of leading a Coalition in INTERFET and being responsible and accountable for the information environment on behalf of partners were quickly overtaken by experiences in the Global War on Terror.

With small pockets of relevant expertise hidden across the Army's various Corps, there is no clear way to implement a cohesive approach leading to developed experience and expertise. For 20 years, the Australian Defence Force has sought to adapt what already exists for an operational requirement in isolation from personnel management because what is needed quickly does not conform to existing Corps, code or specialisation boundaries. If the Army, the Australian Defence Force and Defence are to rapidly introduce the much-needed requirement, the creation of a single, binding entity with a degree of mass for career planning and management is the obvious and simplest solution. A recent RAND study concluded similarly and advocated for consolidation, professionalisation and focused capability management at the highest levels.⁶⁷ The ADF already asks much of its physical power workforce. Expecting them to be brilliant at informational and moral power as well risks significant overreach.

In Army, the creation of a single Information Corps seems to be the logical way to ensure that the organisation grows and sustains the requirement for skilled and knowledgeable practitioners and leaders to support commanders at the operational and strategic level. Similar approaches could be undertaken in Navy and Air Force to ensure the Joint Force, where the information fight is led, is best equipped. Consolidating existing low-density, high-demand capabilities into one organisation focused on the information environment (perhaps the complete Information and Cyber Domain if the current approach to separation of human and technical can be reversed) is the necessary first step. It would allow for current siloed training to be expanded, efficiencies to be found and a clear path from information-related capability specialist to Information Operations generalist to be mapped and supported. Without a mass of people that can be managed effectively and aligned to existing personnel management systems, informational and moral power in the true sense will remain limited, focused on reaction and consumed by mitigation. This primarily defensive approach limits the offensive option today's commanders need to fight and win. An Australian Army Information Service (or Information Corps) would also reflect the Department's approach to public information (which has taken on a decidedly civilian, departmental flavour) and instead focus the military capability where it is of most value, in operations.

To ensure Army can effectively develop the specialists required at higher levels, there is clear merit in consolidating the current Military Public Affairs, Psychological Operations, Civil Military Cooperation, Multimedia Technician and related workforces into one entity focused on understanding, planning and generating effects within the information environment. It parallels the period of professionalisation Army's highly capable combat service support Corps went through in seeking to develop a focused, higher echelon logistician from the broader experience pool of supply, transport and catering specialisations. A similar approach across the Services would ensure the Joint Force is not just supported but highly effective, particularly in those few but critical senior positions that can take the informational and moral power capabilities forward. Once this is established, a larger, more intensive review of consolidated requirements can occur, focused on issues such as alignment of education, entry standards and ab initio training. It will take at least another 10 years to achieve such outcomes. Hopefully the necessary structures will be in place before the next existential crisis forces the organisation to again to break all current rules in response to the exigencies of war.

The vision must be focused on generating a quality staff who intimately understand informational and moral power, can best integrate it with physical power and who also understand how these powers can be harnessed or exploited to support and enhance a plan approved by the accountable commander. This vision is not unachievable. Our collective history is replete with periods of success. Indeed, it builds on those existing elements that remain essential in a tactical fight—the capabilities that can operate on the ground. What it offers in addition is a solid scaffold around these capabilities to ensure the organisation gains from its experiences in the longer term. In summarising their view on the requirements to truly integrate information as a joint function within the US Department of Defense, Scott and Paul highlight the ongoing requirement for professionals:

While all leaders will need to possess basic knowledge of the information environment, information function, and information related capabilities, they will often also need the support of highly educated subject matter experts in order to realize the full potential of information. The fact remains that human behaviours are notoriously challenging to diagnose, understand, and change. Both the intelligence and information-related capabilities community must possess the education and skills to assist the commander in the technical and psychological aspects of information as it relates to plans, operations, and assessment."⁶⁸

Far from disparaging the staff, the ADF must ensure operational and strategic personnel charged with effects in the information environment are as professional and supported as they can possibly be. Achieving true military power needed to fight and win is dependent on it.

Biography

Colonel Jason Logue recently accrued 30 years of service in the ADF the past 20 of which have been almost solely focused on planning, integrating and achieving effects in the information environment. In the absence of a formalised career approach, he is one of the handful of ADF officers with more than a single posting as an information staff officer working across capability specialist and information environment generalist roles. He has undertaken a broad range of information environment related military and postgraduate professional education. He most recently completed a Masters-level program focused on terrorist use of propaganda, a subject he now supports as an Associate Lecturer. He is currently seconded to an interagency role, working in and through the information environment to address emerging strategic challenges to Australia's interest.

Endnotes

- 1 Andrew Hocking, 'Preparing for the Future: Key Organisational Lessons from the Afghanistan Campaign', *The Vanguard*, no. 2 (Canberra: Department of Defence, 2022).
- 2 Ibid., pp. 21–24.
- 3 Carl von Clausewitz, ed. and trans. Michael Howard and Peter Peret, *On War* (Princeton, NJ: Princeton University Press, 1976), p. 77.
- 4 Ibid., p. 97.
- 5 Richard Meinertzhagen, *Diary of a Black Sheep* (Edinburgh: Oliver & Boyd, 1964).
- 6 Simon Wincer (dir.) The Lighthorsemen (Hoyts Distribution (Australia), 1987).
- 7 Richard Meinertzhagen, Middle East Diary, 1917–1956 (London: Cresset Press, 1959).
- 8 Meinertzhagen, 1964.
- 9 Brian Garfield, *The Meinertzhagen Mystery: The Life and Legend of a Colossal Fraud* (Dulles, VA: Potomac Books, 2007).
- 10 He was recently assessed to have been misidentified by Garfield as another officer of the same initials who was killed in action later in the war. Forum thread by michealdr, 'J D Belgrave DSO, RA', *The Great War (1914–1918) Forum*, 31 March 2018, at: <u>https://</u> www.greatwarforum.org/topic/259754-j-d-belgrave-dso-ra/ (retrieved 10 August 2021).
- 11 Garfield, 2007.
- 12 Friedrich Freiherr Kress von Kressenstein, 'Report to Yildirim Army Group headquarters, 18 November 1917, at: <u>https://www.awm.gov.au/learn/schools/resources/back-to-the-source/beersheba/6</u> (retrieved 10 August 2021).
- 13 Ibid.
- 14 Hüseyin Hüsnü, 'Testimony of Lieutenant Colonel Hüseyin Emir', 1921, at: <u>https://www.awm.gov.au/learn/schools/resources/back-to-the-source/beersheba/6</u> (retrieved 10 August 2021).
- 15 Nicholas Rankin, *A Genius for Deception: How Cunning Helped the British Win Two World Wars* (Oxford: Oxford University Press, 2009).
- 16 John Critchley, 'Meinertzhagen: Hero or Fraud?', The Fusilier Museum of London, 2019, at: <u>https://www.fusiliermuseumlondon.org/art24873</u> (retrieved 10 August 2021).
- 17 Garfield, 2007.
- 18 Charles Cruickshank, The Fourth Arm: Psychological Warfare, 1938–1945 (Oxford: Oxford University Press, 1981).
- 19 Rankin, 2009.
- 20 Meinertzhagen, 1964.

- 21 Ben Macintyre, Operation Mincemeat: How a Dead Man and a Bizarre Plan Fooled the Nazis and Assured an Allied Victory (London: Crown, 2010).
- 22 Cruickshank, 1981.
- 23 David Garnett, *The Secret History of PWE: The Political Warfare Executive 1939–1945* (London: St Ermin's Press, 2002).
- 24 Macintyre, 2010.
- 25 Whitney Bendeck, 'A' Force: The Origins of British Deception during the Second World War (Annapolis: Naval Institute Press, 2013), pp. 191–211.
- United States Congress, House Committee on Un-American Activities (1964),
 'Hearings Relating to H.R. 352, H.R. 1617, H.R. 5368, H.R. 8320, H.R. 8757, H.R.
 10036, H.R. 10037, H.R. 10077, and H.R. 11718', *Providing for Creation of a Freedom Commission and Freedom Academy*, Eighty-eighth Congress, Second Session,
 Parts 1–2.
- 27 Huba Wass de Czege, 'Rethinking IO: Complex Operations in the Information Age', *Military Review*, vol. 88, no. 6 (2008), Army University Press.
- 28 David Ronfeldt and John Arquilla, Networks and Netwars: The Future of Terror, Crime, and Militancy (Santa Monica, CA: RAND Corporation, 2001), pp. 6–7.
- 29 Patrick Cronin, *China's Gambit for Total Information Dominance: A US-Australia Response* (Washington DC: Hudson Institute, 2021).
- 30 Andrew Mackay and Steve Tatham, *Behavioural Conflict: Why Understanding People and Their Motivations Will Prove Decisive in Future Conflict* (Military Studies Press, 2011).
- 31 Hocking 2022.
- 32 Brett Boudreau, "We Have Met the Enemy and He is Us". An Analysis of NATO Strategic Communications: The International Security Assistance Force in Afghanistan, 2003–2014

(Riga: NATO Strategic Communications Centre of Excellence, 2016).

- 33 Bendeck, 2013.
- 34 United States Congress, 1964.
- 35 Rankin, 2009.
- 36 Scott Thompson and Christopher Paul, 'Paradigm Change: Operational Art and the Information Joint Function', *Joint Forces Quarterly*, no. 89 (2018), at: <u>https://ndupress.ndu.edu/Media/News/News-Article-View/Article/1490645/paradigm-change-operational-art-and-the-information-joint-function/</u> (retrieved 15 August 2021).
- 37 United States General Staff, *The Functions of the Military Intelligence Division, General Staff* (Washington, DC: Military Intelligence Division, General Staff, 1918).
- 38 Matt Armstrong, 'You should if you read my articles. But otherwise, no ...' [Tweet], 4 March 2019, at: <u>https://twitter.com/mountainrunner/</u> <u>status/1102221338402611200?s=21</u> (retrieved 10 August 2021).
- 39 United States Department of State, Office of the Historian, 'Directors of the U.S. Information Agency', at: <u>https://history.state.gov/departmenthistory/people/principalofficers/director-usia</u> (retrieved 10 August 2021).
- 40 Armstrong, 2019.
- 41 Marlborough Churchill, 'The Military Intelligence Division General Staff', *Journal of the United States Artillery*, vol. 42, no. 4 (Artillery Board, April 1920).
- 42 United States Joint Staff, *Joint Doctrine Note 1-18 Strategy*, 25 April (Department of Defense, 2018).
- 43 Clausewitz, 1976, p. 97.
- 44 Sun Tzu, trans. Lionel Giles, The Art of War (1910), ss 7.29: Maneuvering.

- 45 Miyamoto Musashi, trans. Victor Harris, *A Book of Five Rings* (New York, NY: Overlook Press, 1974), pp. 77–78.
- 46 Robert Gates, 'Robert M. Gates, Secretary for Defense, Landon Lecture, 26 November, 2007', at: <u>https://www.k-state.edu/media/newsreleases/landonlect/gatestext1107.html</u> (retrieved 10 August 2021).
- 47 Yancy Mailes, 'IQ Builder—Operation Desert Storm B-52 Specific', Air Force Global Strike Command, 2016, at: <u>https://www.af.mil/Portals/1/documents/Operation%20</u> <u>Desert%20Storm%2025th%20Anniversary/IQ Builder Operation Desert Storm B-52</u> <u>Specific.pdf</u> (retrieved 10 August 2021).
- 48 Philip M Taylor, *Munitions of the Mind: A History of Propaganda from the Ancient World to the Present Day* New York, NY: Manchester University Press, 2003).
- 49 Huba Wass de Czege, 'Unifying Physical and Psychological Impact during Operations', *Military Review*, vol. 89, no. 2 (Army University Press, 2009).
- 50 Craig Whiteside, *Lighting the Path: The Evolution of the Islamic State Media Enterprise* (2003–2016) (The Hague: International Centre for Counter-Terrorism, 2016).
- 51 PW Singer and ET Brooking, *LikeWar: The Weaponization of Social Media* (New York, NY: Houghton Mifflin Harcourt, 2018).
- 52 Susannah George and Ezzatullah Mehrdad, 'Hundreds of Afghan Forces Surrender in Kunduz as Taliban Consolidates Hold on Country's North', *The Washington Post*, 11 August 2021, at: <u>https://www.washingtonpost.com/world/2021/08/11/hundredsafghan-forces-surrender-kuduz-taliban-consolidates-countrys-north/</u> (retrieved 12 August 2021).
- 53 Singer and Brooking, 2018.
- 54 Neville Bolt, *The Violent Image: Insurgent Propaganda and the New Revolutionaries* (New York, NY: Columbia University Press, 2012).
- 55 William McRaven, Spec Ops: Case Studies in Special Operations Warfare Theory and Practice (Novato, CA: Presidio Press, 1995).
- 56 Whiteside, 2016.
- 57 United States General Staff, 1918.
- 58 The first Op TIDAL WAVE was a strike by 178 USAAF bombers on nine oil refineries in the vicinity of Ploiesti, Romania on 1 August, 1943. See Duane Schultz, *Into The Fire* (Yardley, PA: Westholme Publishing, 2007). The second Op TIDAL WAVE was a series of strikes against the Islamic State in 2015.
- Luis Martinez, 'US Warplanes Destroy 116 ISIS Fuel Trucks in Syria', *ABC News*, 17 November 2015, at: <u>https://abcnews.go.com/International/us-warplanes-destroy-116-isis-fuel-trucks/story?id=35229047</u> (retrieved 15 August 2021).
- 60 The author participated in these working groups as the ADF representative.
- 61 Garnett, 2002.
- 62 Thompson and Paul, 2018.
- 63 Ibid.
- 64 Jim Molan, Running the War in Iraq (Sydney: Harper Collins, 2013).
- 65 Thompson and Paul, 2018.
- 66 Lana Wachowski and Lilly Wachowski (dir.), *The Matrix* (Village Roadshow (Australia), 1999).
- 67 Christopher Paul and Michael Schwille, 'The Evolution of Special Operations as a Model for Information Forces', *Joint Force Quarterly*, no. 100 (2021), at: <u>https://</u> ndupress.ndu.edu/Portals/68/Documents/jfq/jfq-100/jfq-100_8-13_Paul-Schwille. pdf?ver=gPNcyKyhmCP12nbuHMWw7g%3D%3D (retrieved 15 August 2021).
- 68 Thompson and Paul, 2018.



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