



**Australian Army  
Research Centre**

# Spotlight Brief

**No. 4, 2021**

**Edited by Lindsay O'Connor**



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# Contents

<b>Our Region</b>	<b>1</b>
Cyber Security Governance in the Indo-Pacific Policy Futures in Australia, Indonesia, and the Pacific	1
Integrated Review: The defence tilt to the Indo-Pacific	2
Indo-Pacific strategies, perceptions and partnerships	3
Is Myanmar Headed for Collapse or Revolution?	4
<b>Evolving Geo-strategic Dynamics</b>	<b>5</b>
Myths and misconceptions in the debate on Russia	5
Conflict and cooperation with trade partners	6
The Quad Factor in the Indo-Pacific and the Role of India	7
<b>Strategy</b>	<b>8</b>
The landscape of Hybrid Threats: A conceptual model	8
Water and Warfare: The Evolution and Operation of the Water Taboo	9
Force structure and counterinsurgency outcome: the case of the Cyprus Emergency (1955-1959)	10
Remote Warfare: A Critical Introduction	11
<b>Economy</b>	<b>12</b>
The Fourth Industrial Revolution and the Future of Work: Implications for Asian Development Cooperation	12
Trends in World Military Expenditure, 2020	13
<b>People, culture and ethics</b>	<b>14</b>
COVID-19: Make it the Last Pandemic	14
To Blame or to Support? Large-scale Insurgent Attacks on Civilians and Public Trust in State Institutions	15
Education Crisis, Workforce Preparedness, and COVID-19: Reflections and Recommendations	16
Building effective networks for the transition from the military to the civilian workforce: Who, what, when, and how	17

<b>Force Design</b>	<b>18</b>
Clarifying the Relationship of Design Thinking to the Military Decision-Making Process	18
The Nagorno-Karabakh war: a spur to Moscow's UAV efforts?	19
Advancing Prehospital Combat Casualty Evacuation: Patients Amenable to Aeromedical Evacuation via Unmanned Aerial Vehicles	20
<b>Science, Technology and Industry</b>	<b>21</b>
Defense Against the Dark Arts in Space: Protecting Space Systems from Counterspace Weapons	21
Linking National Security and Innovation	22
Cyborgs, Neuroweapons, and Network Command	23
National Security Commission on Artificial Intelligence Final Report	24
Intelligence after Next: Breaking past AI's confirmation bias	25

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## Our Region

### Cyber Security Governance in the Indo-Pacific Policy Futures in Australia, Indonesia, and the Pacific

The University of Queensland – May 21

A regional team of experts review the strengths and weaknesses in regional cyber security governance for Australia, Indonesia and Pacific Island nations. They chart new approaches for Australian cooperation with regional partners on cyber security. While there are lessons that Indonesia and Pacific Island nations can learn from Australia, the report also highlights that these other nations have developed policy and engagement areas that Australia could pursue. This reflects the democratisation of many new, disruptive technologies. Critically, in offering scope for further, tailored, regional cooperative and building programs, this report suggests opportunities for Army to help and learn as part of a broader Australian effort.

#### **Related:**

'Indonesia responds to the cyber dark side', *The Interpreter*, 13 May 21

'Government needs to ensure Australia's digital sovereignty', *The Strategist*, 10 May 21

'New Australian cyber package includes AU\$37.5m Indo-Pacific investment', *ZDNet*, 21 Apr 21

'Indonesian MSMEs unite on cybersecurity', *The Australian-Indonesia Centre*, 23 Mar 21

'The Future of Cyber Security in Australia', *Australian Information Security Association Cyber Conference 2021*, 15 Mar 21

## **Integrated Review: The defence tilt to the Indo-Pacific**

House of Commons Briefing Paper – May 21

The United Kingdom's Government released its Integrated Review and associated Command Paper in March 2021. These papers outlined a 'tilt to the Indo-Pacific' in a signal of intent that would see the UK acting well east of the Suez for the first time in more than five decades. It highlights that the Indo-Pacific is essential for the UK's security due to the increased number of potential flashpoints and economic strength of the region. As part of this tilt, the UK has committed to deepening ties with key allies (especially Australia), expanding its contribution to the Five Powers Defence Arrangement and increasing its maritime presence. Of particular note is the development of a hub within Canberra that oversees all British Attachés and Advisors in the region.

### **Related:**

'The UK tilt to the Indo-Pacific – Is it achievable?', *UK Defence Journal*, 22 May 21

'The Good, Bad and Ugly – The British Army and the Integrated Review', *The Wavell Room*, 09 Apr 21

'What does the UK's integrated review mean for the Indo-Pacific?', *The Strategist*, 23 Mar 21

'3 Indo-Pacific Takeaways From the UK 'Integrated Review'', *The Diplomat*, 17 Mar 21

'Global Britain in a Competitive Age: the Integrated Review of Security, Defence, Development and Foreign Policy', *UK Government*, 16 Mar 21

## Indo-Pacific strategies, perceptions and partnerships

Chatham House – Mar 21

As the Indo-Pacific grows in strategic importance, especially economically, countries worldwide are developing new policies to take advantage of or counter these conditions. Many countries have had their policies degraded or crippled because they developed their plans internally with a lack of understanding of what partners are doing or thinking. Unfortunately, this lack of understanding undermines cooperation, collaboration and coordination where there are shared objectives. In this excellent report, Cleo Paskal tackles this problem, looking at six key nations (the US, the UK, France, India, Tonga and Japan) and summarising their perspectives and insights.

### **Related:**

'Keeping Strategic Anxieties at Bay: Growing Japan-Vietnam Bonhomie', *The Diplomat*, 04 Jun 21

'Assessing the Trend of the Indo-Pacific Strategy', *Modern Diplomacy*, 03 Jun 21

'Development lessons for the security agenda', *Asia & the Pacific Policy Society*, 14 Apr 21

'France: A Bridge between Europe and the Indo-Pacific?', *Center for Strategic and International Studies*, 01 Apr 21

'Indo-Pacific views from Tokyo to Tonga', *The Strategist*, 29 Mar 21



## Is Myanmar Headed for Collapse or Revolution?

Center for Strategic and International Studies – May 21

The security situation within Myanmar has been steadily degrading since the military coup on 01 Feb 21. Stiffening resistance from those linked with the National Unity Government (NUG) and key rebel groups based in different ethnicities has challenged the governing junta. This report also highlights how ASEAN has released a Five-Point Consensus condemning the coups in April, but due to the principle of non-intervention in the domestic politics of its members, has otherwise avoided intervening. This excellent situational report continues with another three critical questions about the situation in Myanmar:

- what is happening on the ground?
- how much support does the NUG have?
- what options does the US have in reacting?

### **Related:**

'Beyond the Coup in Myanmar: The Emerging New Politics of Gen Z',  
*Just Security*, 03 Jun 21

'Myanmar: In the Throes of a Revolution?', *Centre for Policy Research*,  
31 May 21

'Why Myanmar's civil war won't be like Syria's', *Asia Times*, 23 May 21

'Myanmar: The small embattled town that stood up to the army', *BBC News*, 22 May 21

'How Myanmar's Civil Disobedience Movement Is Pushing Back Against the Coup', *VOA News*, 27 Feb 21

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# Evolving Geo-strategic Dynamics

## Myths and misconceptions in the debate on Russia

Chatham House – May 21

The West's relationship with Russia has failed to achieve long-term stability or manageability. This article highlights that over the past two decades, several myths about Russia and its policies and objectives have undermined how nations including Australia have approached Russia. While Australia rightfully focuses on its own region, supporting other Western nations in deescalating and improving Russian relations frees up time, resources and efforts for other challenges. Here, Chatham House tackles 16 common myths about Russia. They provide a discussion and recommendations for each myth that are also then summarised for an overall, improved approach.

### **Related:**

'Nord Stream 2: Assessing Russia's "serious geopolitical victory"',  
*The Interpreter*, 03 Jun 21

'How The West Is Losing Russia – Again', *Modern Diplomacy*, 20 May 21

'Expanding the Scope for Statecraft in U.S. Russia Policy', *War on the Rocks*, 14 May 21

'Relations with Russia', *NATO*, 21 Apr 21

'Russia's Asia diplomacy', *The Interpreter*, 16 Apr 21

## Conflict and cooperation with trade partners

International Interactions – Jan 21

The false belief that trading nations do not go to war with each other has existed since 1795. This remains a commonly held view despite France's major trading partner being Britain in 1802, and Germany's largest trading partner being Britain 1913 and again in 1938. Here, Timothy Peterson and Yuleng Zeng try to determine what leads to conflict between trade partners. They take a broad approach to conflict and cooperation, what trade is, and how leaders respond, and find that states can simultaneously cooperate and be in conflict with their major trading partners. These options reduce the more exposed to the global economy a nation is, but other options to cooperate with non-major trading partners increase. While inter-state armed conflict has decreased since 1945, other forms of competition have remained or increased, suggesting the world is not as peaceful as it seems.

### **Related:**

'Capitalist peace', *Wikipedia*, 06 Jun 21

'The uses and abuses of weaponized interdependence in 2021',  
*The Washington Post*, 02 Mar 21

'Economic Diplomacy in the Era of Great Powers', *Chatham House*,  
15 Sep 20

'How Free Trade Increases Peaceful Interaction Between Nations',  
*Foundation for Economic Education*, 24 Oct 19

'The end of the Golden Arches doctrine', *Financial Times*, 11 May 15

## **The Quad Factor in the Indo-Pacific and the Role of India**

Journal of Indo-Pacific Affairs – Mar 21

The Quadrilateral Security Dialogue did not form as a security pact like NATO, but rather as a humanitarian assistance / disaster relief collaboration to respond to disasters within the Indo-Pacific region. While the increased tension in the region has increased the security focus of the Quad, especially in 2020, the COVID pandemic has also forced a return to the Quad's roots. Here, Doctor Amrita Jash provides more details about the Indian view of the Quad, highlighting the advantages it brings India and vice-versa. The two key advantages for New Delhi are the demonstrated ability to react to disaster relief issues in the Indian Ocean, and the building of key bilateral relationships with Washington and Canberra.

### **Related:**

'India, Australia look forward to convening '2+2' dialogue soon',  
*The Economic Times,*

'Bolstering the Quad beyond its military dimensions', *East Asia Forum,*  
30 Apr 21

'The Quad: What It Is – And What It Is Not', *The Diplomat,* 24 Mar 21

'The Quad gives a boost to India's vaccine diplomacy', *The Interpreter,*  
16 Mar 21

'Leveraging Greater Quad Cooperation through Disaster Management in the Indo-Pacific', *South Asian Voices,* 22 Jan 21

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## Strategy

### **The landscape of Hybrid Threats: A conceptual model**

The European Centre of Excellence for Countering Hybrid Threats – Feb 21

This product comes out of an assessment that hybrid threats are much older than most recent security discussion suggests and that our methods of addressing them are outdated. The authors argue that there has been little progress analysing and addressing hybrid threats due to their complexity and a lack of common understanding. With this work, the Joint Research Centre of the European Commission and the European Centre of Excellence for Countering Hybrid Threats have joined forces to develop a conceptual model and framework for characterising hybrid threats. The model breaks the threat down into four pillars: actors, domains, tools and phases. This allows for the creation of multi-Department, multi-phased, complex responses with multiple lines of effort (an expected outcome when dealing with hybrid threats) and the early identification of emerging hybrid activities or threats.

#### **Related:**

'Responding to 'grey zone' attacks', *Australian Naval Institute*, 15 May 21

'Tackling Hybrid Warfare: The Salisbury Poisoning Three Years On', *Ripjar*, 08 Mar 21

'Whispers from Wargames about the Gray Zone', *War on the Rocks*, 08 Mar 21

'What is "Hybrid Warfare," Really?', *Center for European Policy Analysis*, 24 Feb 21

'Energy security in the era of hybrid warfare', *NATO Review*, 13 Jan 21

## **Water and Warfare: The Evolution and Operation of the Water Taboo**

International Security – Apr 21

The securitisation of water access has been a major policy concern for decades. Increasingly explicit guidance on water securitisation has featured in international policy making from the 1970s onwards; coercion around water is now a 'taboo'. Charlotte Grech-Madin traces this taboo history and finds that the growth in this taboo has influenced States at various levels, internally and externally.

### **Related:**

'Egypt Asks for UN Help in Long-Running Ethiopian Dam Dispute',  
*Bloomberg*, 13 Jun 21

'Finding a new approach to water security in Southeast Asia',  
*The Interpreter*, 04 Jun 21

'What Is a Water War?', *The Diplomat*, 24 Mar 21

'US Water Plant Suffers Cyber Attack Through the Front Door', *RUSI*,  
10 Feb 21

'Syria: Are water supplies being weaponized by Turkey?', *Deutsche Welle*,  
24 Jan 21

## **Force structure and counterinsurgency outcome: the case of the Cyprus Emergency (1955-1959)**

Defence Studies – Feb 21

A common strategic refrain from the Cold War is that mechanised forces are less likely to conduct successful counterinsurgency wars. This idea was popularised in 2009 by Jason Lyall and Isaiah Wilson's work *Rise against the Machines: Explaining Outcomes in Counterinsurgency Wars*. This idea coupled with the rise of COIN conflicts has led to the downsizing mechanised forces in the post-Cold War era despite the limitations this poses on a military's capability to fight a peer war. Experience in Afghanistan and Iraq have called into question this 'gospel', especially the surge success in 2007. In this article, Fausto Scarinzi examines a dismounted infantry and police focused force that failed to achieve success in Cyprus, despite an 'optimal' force construct. This historical case study undermines one the greater perceived obstacles to mechanising an Army, reinforcing the growing weight of scholarship that shows mechanised forces can conduct COIN.

### **Related:**

'Cyprus', *National Army Museum*, 2017

'The Principles of Destruction in Irregular Warfare: Theory and Practice', *Small Wars Journal*, 01 Apr 12

'Mechanized Forces in Irregular Warfare', *Military Review*, Mar – Apr 11

'Death Before Dismount?: Mechanization, Force Employment, and Counterinsurgency Outcomes in Iraq', Massachusetts Institute of Technology Political Science thesis, Feb 11

'Rage against the Machines: Explaining Outcomes in Counterinsurgency Wars', *International Organization*, Winter 09

## Remote Warfare: A Critical Introduction

E-International Relations – Feb 21

For the majority of this century, major powers have pursued warfare remotely. This article attests that instead of deploying significant forces, belligerents have chosen to rely on training and supporting local paramilitary groups, providing them with high-end technical support. In theory, this poses less costs and risk to the intervening nation. This form of warfare has been prevalent across the Middle East and Northern Africa. It is not just the preferred Western approach – states like Russia and Iran have also adopted it. In this introduction to *Remote Warfare: Interdisciplinary Perspectives*, Abigail Watson and Alasdair McKay link recent and historical examples to explain this phenomenon and the changing character of war. Critically, they also point out significant flaws with remote warfare, notably the difficulty protecting civilians, its long-term impact on stability, and the lack of transparency and accountability.

### **Related:**

'Remote warfare will not end age-old Israel-Palestine conflict', *Business Day*, 20 May 21

'American Special Ops Forces are Everywhere', *The Atlantic*, 12 Mar 21

*Remote Warfare: Interdisciplinary Perspectives*, E-International Relations, 2021

'Military drones are changing, as are the wars they're fighting. Here's what's happening now', *ABC News*, 26 Feb 21

'To End the Forever Wars, Rein in the Drones', *Just Security*, 16 Feb 21



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## Economy

### **The Fourth Industrial Revolution and the Future of Work: Implications for Asian Development Cooperation**

Korea Development Institute School of Public Policy and Management  
– Jan 21

The technologies of the Fourth Industrial Revolution (4IR) continue to alter the Australian economy and workforce, but the change has been relatively gradual because our economic base was already reasonably sophisticated. For some nations within Asia, the 4IR has been especially profound. Although millions of people may have been lifted from poverty, the technology and skills needed to use it have bypassed millions. This report brings together people from across academia, intergovernmental organisations and governments to review and pose solutions to these challenges. This work also touches on complex topics that Australia is wrestling with, such as the future of work, women in STEM, education changes, cultural changes and the role of regional and international cooperation.

#### **Related:**

'What is driving adoption and advances for Industrial 4.0 technologies across Asia?', *McKinsey and Company*, 04 May 21

'Vietnam poised for growth as digital tech drives another industrial revolution', *ASEAN Today*, 30 Apr 21

'Japan Takes Leadership Role in Fourth Industrial Revolution Global Summit', *Mirage News*, 05 Apr 21

'Recovery in Emerging Asia will face significant challenges through 2021', *OECD*, 04 Feb 21

'Recognising the potential of Industry 4.0 in Asia Pacific', *Global System for Mobile Communications*, Jan 21

## Trends in World Military Expenditure, 2020

Stockholm International Peace Research Institute – Apr 21

This article summarises global and regional military spending in 2020, finding there has been an increase in real spending and spending compared to gross domestic product from 2019, the latter primarily due to the constriction of economies due to COVID. This marks the highest rate of global military spending since 1988, at least. General trends of interest are:

- The top 15 nations for spending have generally remained unchanged (with Australia unchanged at 12).
- Oceania, Asia and North America make up more than two-thirds of the spending increase.
- Australia makes up 1.4% of worldwide military spending and 37.6% of South-East Asian military spending.
- Oceania was the third fastest growing region in terms of military spending after North Africa and Central Europe.

### **Related:**

'Targeting Asia-Pacific defense, Australia to spend \$580m on military upgrades', *CNN*, 28 Apr 21

'The world spent almost \$2 trillion on defense in 2020', *Defense News*, 26 Apr 21

'Asian Military Spending: A Sign of Worsening Security Environment', *The Diplomat*, 04 Mar 21

'Japanese defence spending at the fiscal crossroads', *East Asia Forum*, 17 Feb 21

'Bad Idea: Demanding Allies Spend Two Percent of GDP on Defense', *Defense 360°*, 21 Dec 18

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## People, culture and ethics

### COVID-19: Make it the Last Pandemic

Independent Panel on Pandemic Preparedness and Response – May 21

The World Health Organisation established the Independent Panel for Pandemic Preparedness and Response in September 2020 to provide an evidence-based path for the future. Its task was to draw from lessons in the present and from the past to ensure countries and global institutions, including the WHO, effectively address future health threats. They initially investigated why COVID-19 exploded like it did, presenting their findings and recommendations in this report. Critically, they found that the pandemic was preventable; that preparation was poor, alerts too slow and meek, the WHO underpowered, inequalities with responses, and a lack of global leadership. Of particular note, for COVID-19 and the future, the rate of zoonotic disease emergencies is accelerating, yet nations underfunded and failed to stress-test preparedness systems. One surprising finding was national wealth had no bearing on the success or otherwise of containing COVID, an interesting concept for other organisations involved in similar planning and preparedness fields.

#### **Related:**

'Learning from COVID's 'Chernobyl moment'', *The Harvard Gazette*, 11 Jun 21

'How to plan for future pandemics', *Bangkok Post*, 10 Jun 21

'COVID-19 warnings were ignored, independent review of global response finds', *ABC News*, 12 May 21

'Post-Covid disaster governance in Southeast Asia', *The Interpreter*, 07 May 21

'Why did the world's pandemic warning system fail when COVID hit?', *Nature*, 23 Jan 21

## **To Blame or to Support? Large-scale Insurgent Attacks on Civilians and Public Trust in State Institutions**

International Studies Quarterly – Mar 21

This article identifies that while there is significant work in understanding public attitudes towards government institutions within Western nations that suffer terror attacks, there is much less work on nations already in a warlike state. Such an understanding is critical for both the nation at war, as well as supporting nations. Annekatrin Deglow and Ralph Sundberg review two hypotheses: that individuals rally to support State institutions or that individuals seek to punish the State for failing. Deglow and Sundberg use Afghanistan as their exemplar, due to the high levels of attacks. Their focus is the Spozhmai Hotel attack in 2012 and find that, while there are further areas of research needed in different types of attacks, the former response is more likely.

### **Related:**

'New study shows Norwegians disagree about who was impacted by the terror attacks in 2011', *Science Norway*, 13 Jun 21

'Public Trust in Government: 1958-2021', *Pew Research Center*, 17 May 21

'The blame game in international politics: Part I', *The World*, 13 Apr 21

'Rebuilding trust in government', *Deloitte*, 09 Mar 21

'Restore Trust in National Security Institutions', *Center for Strategic & International Studies*, 22 Jan 21

## Education Crisis, Workforce Preparedness, and COVID-19: Reflections and Recommendations

American Journal of Economics and Sociology – Mar 21

The COVID-19 pandemic had a significant impact on the global education sector. This article examines the consequences of the pandemic on workforce preparedness, as well as on 'the future of work' agenda. Its main finding is that the education sector was already at a point of inflection, suffering from out of date processes and high costs. The authors highlight the increased use and adoption of digital tools, the push to online learning (and the actual time this requires to deliver a quality product) and the question as to push versus pull. The push-pull dynamic reflects organisations preference to push technical type topics and 'hard' skills (like coding or project management), but that students and employees prefer 'softer' skills (like leadership or well-being). The article's view of education is relevant to the Army as it highlights the importance of the balance of 'soft' versus 'hard' skills in education and drives questions as to how the 'Training Transformation' approach might continue.

### **Related:**

'How COVID-19 is ending the stigma of online learning', *World Economic Forum*, 01 Jun 21

'A reimagined Australia requires new skills – and this impacts everyone', *Grant Thornton*, 28 Apr 21

'The rise and rise of edtech higher education providers', *University World News*, 06 Mar 21

'17,000 Uni Jobs Lost to COVID-19', *Universities Australia*, 03 Feb 21

'It's getting harder to predict the future of HE', *University World News*, 16 Jan 21

## **Building effective networks for the transition from the military to the civilian workforce: Who, what, when, and how**

Military Psychology – Apr 21

The transition from military to civilian life is something that almost all ADF members face. It is an enormous change, and for many it is fraught with challenges that can pose significant issues. Adding complexity is that it is not one change, but two simultaneous changes: a shift from a military organisation to a civilian one but also a shift in identity. These authors note how networks enable effective transition from the military. They then define the next two steps to develop a smoother transition: what and when resources are best offered and how the member builds their own networks across several areas. While there are still gaps in the process and our understanding of it, this work provides a significant advancement in understanding the underlying human natures that need addressing or building to lessen transitional shocks.

### **Related:**

'5 tips for how to successfully transition out of the military', *Task and Purpose*, 10 May 21

"It was hard": Australian veteran details her struggle to transition into civilian life', *7 News*, 25 Apr 21

'For many military veterans, leaving the force is the biggest battle', *The Conversation*, 26 Mar 21

'Partnerships needed to support the military-to-civilian transition', *The Hill*, 06 Mar 21

'Managing our people through the Capability Life Cycle', *The Cove*, 19 Jan 21

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## Force Design

### Clarifying the Relationship of Design Thinking to the Military Decision-Making Process

University of South Florida – Nov 20

This doctoral thesis by Thomas Fisher proposes a new model of military decision making that better enables commanders to operate in increasingly complex environments. It takes the pre-existing US Army planning and applies design thinking to create a model better able to cope with a broad range of interconnected aspects. Fisher has built upon the advice and experiences of senior US planners involved in operations over the past 20 years. He also cuts through existing debates within the US Department of Defense over design thinking. Fisher argues that there are four key advantages of his new model. They are related to creating new intellectual 'spaces' where close consideration allows a better definition of success, more opportunities to develop courses of action and the ability to update the problem as the campaign progresses – all in a more complex environment. Fisher's work has also allowed him to question the current doctrinal break-up of the Operations and Planning Staff – proposing a variation that allows better use of design thinking and providing commanders more flexibility and depth.

#### **Related:**

'Sustaining the fight – what we learned in discovery', *Defence Digital*, 01 Apr 21

'Design Thinking', *Joint Forces Quarterly*, 30 Mar 21

'An Irregular Upgrade to Operational Design', *War on the Rocks*, 19 Mar 21

'The Death of Critical Thinking in the Military? Here's How to Fix It', *Real Clear Defense*, 14 Jan 21

'Design Thinking: Applications for the Australian Defence Force', *Joint Studies Paper Series*, Dec 19

## **The Nagorno-Karabakh war: a spur to Moscow's UAV efforts?**

The International Institute for Strategic Studies – Mar 21

The gap between Russian and Western capabilities in UAVs has been steadily growing. At the same time, while having significantly more air defence capabilities than Western militaries, the performance of Russian systems against UAVs across the Middle East and Northern Africa has been patchy. In looking at their UAV capabilities, Julian Cooper highlights that Russian procurement procedures, missing technical capabilities and inter-service rivalry have been the leading causes of lag, with little chance of this improving. In counter-UAV areas, Cooper shows that the Nagorno-Karabakh war and Russian operations in Syria have led to an uptick in dedicated counter-UAV and loitering munition exercises. The Defence Ministry is also pursuing electronic counter-UAV systems as well as guns and missiles. This aspect of Russian UAS operations has seen more success, especially since the end of 2020.

### **Related:**

'Russia's real-world experience is driving counter-drone innovations',  
*Defense News*, 23 May 21

'Russian UAV Technology and Loitering Munitions', *Eurasia Daily Monitor*,  
05 May 21

'Strength in Numbers: Russia and the Future of Drone Swarms', *Modern War Institute*, 20 Apr 21

'Learning the lessons of Nagorno-Karabakh the Russian way',  
*The International Institute for Strategic Studies*, 10 Mar 21

'The Second Karabakh War: Lessons and Implications for Russia (Part One)', *Eurasia Daily Monitor*, 05 Jan 21



## **Advancing Prehospital Combat Casualty Evacuation: Patients Amenable to Aeromedical Evacuation via Unmanned Aerial Vehicles**

Military Medicine – Mar 21

Although all militaries are considering possible roles for uncrewed platforms, it is still not clear that the uncrewed platforms are feasible for replacing or augmenting current platforms for all of the tasks military planners envisage. The authors rectify this problem for medical missions through research into battle casualties in Operation Enduring Freedom between January 2011 and March 2014. They established that half of the casualties did not require lifesaving intervention while being transported, meaning that a UAV could have provided that capability. They also identified the most likely injury types that UAVs could evacuate, freeing up a crewed platform for more complicated injuries. The result of this research is a better understanding of how to manage a modern evacuation system involving UAV's.

### **Related:**

'Milrem Robotics' THeMIS UGVs used in a live-fire manned-unmanned teaming exercise', *European Defence Review*, 20 May 21

'Army Seeks Robots to Transport Wounded Troops', *National Defense*, 01 Apr 21

'Cormorant', *Tactical Robotics*, 31 Jan 21

'Theseus, Daedalus and Icarus', *The Wavell Room*, 22 Jan 21

'CityHawk EVTOL Gets Off The Ground Following Initial Orders', *Clean Technica*, 06 Jan 21

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## Science, Technology and Industry

### Defense Against the Dark Arts in Space: Protecting Space Systems from Counterspace Weapons

Center for Strategic and International Studies – Feb 21

On 19 May 21, Air Marshal Mel Hupfeld announced the formation of a Space Command that would draw upon personnel from all three Services. The Army will play a significant role in building Australia's Space Domain capabilities. This report from CSIS is an excellent summary of the passive and active measures to protect satellites and ground infrastructure from various threats. This report simultaneously offers Army personnel a more comprehensive knowledge of space operations, as well as options and methods for offensive and defensive actions within the Land domain.

#### **Related:**

'The commercial advantage in space's grey zone', *The Strategist*, 16 Jun 21

'Space-Based Capabilities Critical to U.S. National Security, DOD Officials Say', *Department of Defense*, 24 May 21

'What is Australia's space division, and why is it in the military?', *ABC News*, 13 May 21

'An Australian 'space command' could be a force for good — or a cause for war', *The Conversation*, 01 Apr 21

'Placement of Weapons in Outer Space: The Dichotomy Between Word and Deed', *Lawfare*, 28 Jan 21

## Linking National Security and Innovation

Center for Strategic and International Studies – Feb 21

“A few years ago, a startup working on cutting-edge, AI-driven sensor technology valuable for [uncrewed] aerial vehicles approached the Pentagon, was given a sheaf of forms, and was told to fill them out and come back in a few months. By coincidence, a [foreign] investor approached him at the same time and offered to write a check for \$10 million on the spot.” This report examines the intersection between national security organisations and innovation, identifying holes and obstacles that negate the benefits of new technologies.

### **Related:**

‘New defence-innovation agency helps Adelaide AI spinoff enter US market’, *Mirage News*, 15 Jun 21

‘The Tension Between Secrecy and Innovation’, *Foreign Policy Research Institute*, 10 May 21

‘Commercial Interest Grows in Defense Innovation Unit’, *National Defense*, 05 Apr 21

‘Tech policy is a matter of national security’, *Defense News*, 04 Mar 21

‘Investment in Defence Innovation Paying Off’, *Defence Science and Technology Group*, 09 Feb 21

## **Cyborgs, Neuroweapons, and Network Command**

Scandinavian Journal of Military Studies – Feb 21

Neuroscience and neurotechnology offer reasonably unexplored opportunities to the future Army, with improvements to human brainpower and new options for robotics or artificial intelligence. Katrine Nørgaard and Michael Linden-Vørnle explore neuroscience progress across intelligence, cognitive enhancement and weaponry. Using plain language, they help identify advantages and challenges that cyborg weaponry brings to warfare and military command.

### **Related:**

'The Military Is Funding Ethicists to Keep Its Brain Enhancement Experiments in Check', *Future Human*, 01 Apr 21

'Danger Ahead: Robotics in War Are Ethically Flawed', *Analytics Insight*, 28 Mar 21

'Real-Life Mind-Control Technologies Governments Are Actually Working On', *Interesting Engineering*, 22 Mar 21

'Building trust in human-machine teams', *Brookings*, 18 Feb 21

'Opinion on 'Responsible Dual Use'', *Human Brain Project*, 2018

## National Security Commission on Artificial Intelligence Final Report

National Security Commission on Artificial Intelligence – Mar 21

This report provides an integrated national strategy for the United States to reorganise, reorient and rally in order to compete in the coming era of AI-accelerated competition. At 700+ pages, it is an important document based on two convictions: that the ability of computers to perform tasks that would otherwise require human intelligence is world altering and that the window of vulnerability for the US is expanding. It provides a comprehensive blueprint for the US Government and a significant number of recommendations, including the need to work with private industry, identify suitable uniformed members for work in this area, improve service member's knowledge and work closely with allies.

### **Related:**

'Artificial Intelligence Act: What Is the European Approach for AI?',  
*Lawfare*, 04 Jun 21

'Australia's strategic future hinges on investment in AI', *The Strategist*,  
13 May 21

'The US National Security Commission issues its "Final Report on AI in  
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## **Intelligence after Next: Breaking past AI's confirmation bias**

The MITRE Corporation – Mar 21

The introduction of artificial intelligence into the military has many possible purposes. One of the most commonly discussed is aiding intelligence work. It makes sense; intelligence analysts can often find themselves supplied with a massive amount of information that requires sifting through for a handful of critical data points. Due to their training method, AIs are excellent at finding information that supports an analyst's hypothesis, but not so at finding contradictory information. Here, Mike Shea offers two paths for developing AIs that can aid in investigating alternate hypotheses better: widening the net of the machine learning algorithms or augmenting the process by including wider numbers of information databases at various points.

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