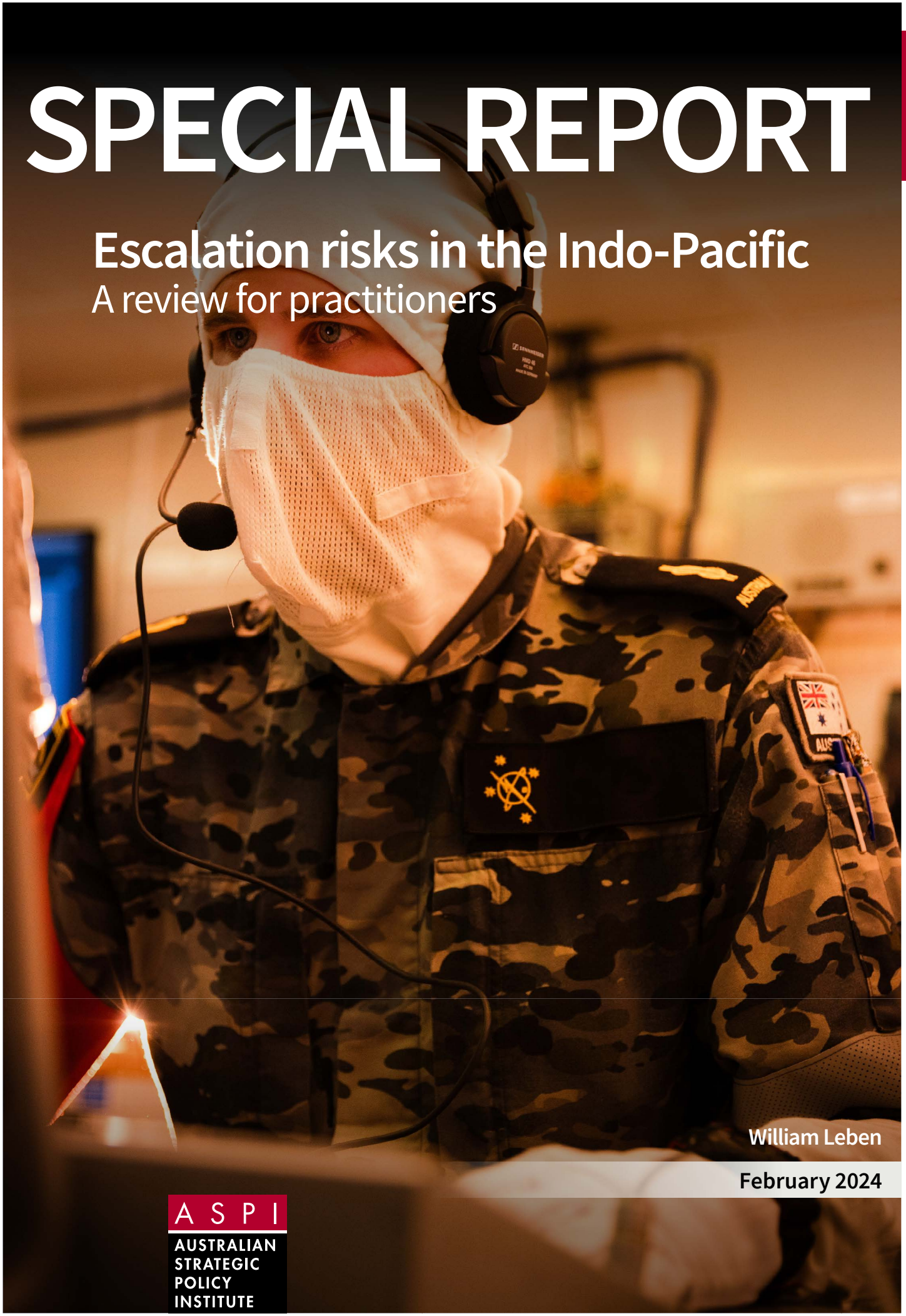
SPECIAL REPORT

Escalation risks in the Indo-Pacific

A review for practitioners



William Leben

February 2024

ASPI
AUSTRALIAN STRATEGIC POLICY INSTITUTE

ASPI

About the author

William Leben is an analyst with eclectic research interests, including climate change impacts, colonial PNG, Australian foreign policy, future war and much else. He holds an MPhil from Oxford, is a 2019 General Sir John Monash Foundation Scholar, and previously served as an Australian Army officer. He is an Expert Associate at the National Security College, ANU.

Acknowledgements

The author thanks the many colleagues who offered feedback and thoughts during the long development of this paper. Errors and omissions remain, of course, entirely his own.

About ASPI

No specific sponsorship was received to fund production of this report.

Cover image: Defence image library, online.

Escalation risks in the Indo-Pacific

A review for practitioners

William Leben

February 2024

ASPI
AUSTRALIAN STRATEGIC POLICY INSTITUTE

First published February 2024

Published in Australia by the Australian Strategic Policy Institute

ASPI
Level 2
40 Macquarie Street
Barton ACT 2600
Australia

Tel Canberra + 61 2 6270 5100
Tel Washington DC +1 202 414 7353
Email enquiries@aspi.org.au
www.aspi.org.au
www.aspistrategist.org.au

Facebook.com/ASPI.org

@ASPI_org

Contents

Executive summary

The outbreak of war in the Indo-Pacific is a real possibility. Increased competition, a growing trust deficit between global and regional powers and potential miscalculations heighten the risk. There needs to be a more engaged Australian discussion on conflict-escalation risks and how they might be managed. Policymakers and leaders need to understand those risks as they manage Australia's relationship with the US, China, North Korea and Australia's key regional defence partners over coming decades. In rhetoric and in action, Australia also needs to be attentive to how the acquisition and employment of our own new capabilities—strike missiles, evolving cyber capabilities and nuclear-propelled submarines—affect strategic stability dynamics in a fast-changing world.

This paper addresses key priorities for the Australian Government. Australian ministers and senior officials have consistently called for governments across the region to use their agency to shape great-power dynamics, including supporting the development of so-called 'guardrails' to manage strategic competition between China and the US.[1]

The Russian invasion of Ukraine has heightened concern about escalation risks in general terms. While there are many important lessons to be learned from that conflict, it's essential that similar concerns are understood by Australian policy- and decision-makers as they relate to *our* key partners and *our* geography.

In this paper, I have two main objectives. The first and principal aim is to provide a review and discussion of various escalation risks in the Indo-Pacific. The ambiguous nature of maritime capabilities, novel technologies, unknowns in the nuclear balance and simple human frailty all give reason for ongoing concern.

Second, I identify policy options for mitigating those concerns, summarised as follows:

1. Support the establishment of appropriate crisis-management mechanisms.
2. Continue and improve crisis exercises, in which national decision-makers should participate.
3. Invest in understanding escalation thresholds.

It's important to be up front that my emphasis in this report is on Australian and allied capabilities and concepts. To borrow some military jargon, the report is focussed on 'blue' (one's own side) and not on 'red' (potential adversaries). I encourage further research and discussion about the escalatory implications of what our potential adversaries are doing. Conflict and contest are always two-sided (or many-sided) affairs, and the actions we take—even in combination and coordination with allies and partners—can't determine outcomes on their own.

Moreover, the risks discussed here can never be eliminated. If deterrence is to be a significant part of the answer to our security challenges over coming decades, then the management of escalation risks will be an ongoing imperative.

This report has four parts. The first reviews key conceptual thinking on escalation risks. The second turns to the contemporary Indo-Pacific region and the key reasons for concern. The third suggests potential regional crisis scenarios, with an eye to plausible Australian roles. The fourth and final section details the three policy options listed above for managing crisis risks.

Crises, strategic stability and escalation

If deterrence appears to have failed and two adversaries perceive war to be imminent, decisions will be made under crisis conditions of great pressure. In such a context, certain pressures may lead to escalation unfolding in unintended and undesirable ways.

There are extensive definitional arguments about what constitutes a 'crisis' and 'strategic stability'.[2] The literature on escalation is vast and spans both conventional and nuclear strategic settings. Among the most famous studies are those concerned with the outbreak of World War I.[3] They highlight that there are many potential pathways to escalation.

Inadvertent escalation might result by deliberately taking an action, without realising that the action crosses a significant threshold in the mind of the adversary and thereby leads to an unexpected, escalated response.[4] The Chinese entry into the Korean War is an important historical example.[5] Analyses of general war in Western Europe between NATO and the USSR were often preoccupied with the risk of inadvertent escalation from conventional to nuclear war. In the 1970s and 1980s, that concern ultimately pivoted on whether NATO could use 'tactical' nuclear weapons to defeat an overwhelming Soviet conventional attack without inadvertent escalation to a general nuclear exchange. That prompted the related concern that uncertainty on this point undermined the credibility of the US commitment to the defence of Western Europe.

As US President John Kennedy acknowledged to French President Charles de Gaulle during the 1961 Berlin crisis, it was difficult to make the Soviets or European allies believe that the US would risk New York to save Paris.[6] There was grave concern on both sides of the NATO – Warsaw Pact divide about those uncertainties.

Accidental escalation is the result of something that could genuinely be considered a mistake. The air war between Britain and Germany in 1940 has been cited as an example: the first German raid on London was apparently a targeting error that then contributed to an escalating cycle of bombing.[7] A range of Cold War near-miss nuclear accidents could have had catastrophic accidental escalation consequences.[8]

During the Cuban missile crisis, President Kennedy was apparently unaware that US Navy surface vessels were using practice depth charges to force the Soviet submarine B-59 to the surface; naval officers were simply carrying out what they believed to be a routine procedure.[9] Unaware of the escalating crisis above the surface, a single dissenting officer on board the B-59 famously prevented the submarine from responding with a nuclear-tipped torpedo. The submarine instead surfaced and departed from the area.[10]

Pre-emption. In the context of an emerging crisis, the prospect of being catastrophically surprised and disarmed by an adversary with strong offensive capabilities creates powerful incentives to strike first. This is based on assessments that a first strike would both significantly damage the adversary's forces and therefore possibly limit the damage that the first mover would have to absorb.[11]

The Able Archer exercise in 1983, a NATO training activity that the USSR perceived as preparation for a first strike, can be seen as an example in which this type of pressure could have led to war.[12] This is more worrying when offensive actions are perceived as having supremacy over defensive ones ('offence dominance' and 'first mover advantage'). In such a setting, a leader might think that their prospects for a successful campaign are considerably enhanced, and their vulnerability reduced, by taking the first offensive action. The outbreak of World War I is widely considered a foundational example of this dynamic: a blinkered 'cult of the offensive' in that case contributing to the outbreak of the war and its enormous scope.[13]

Militaries will invariably seek to develop the equipment and the plans to win prospective wars. National leaders might also choose to take deliberate decisions to go to war. What demands our attention here is how certain technological developments, deployment decisions, force postures and so on can be understood to increase the possibility that competition or conflict will escalate beyond the intentions or understandings of national decision-makers.

Those concerns are heightened when the states in question have allies and partners making independent calculations and decisions. An underappreciated aspect of the Cuban missile crisis, which is perhaps the most intensely examined crisis-management case study, is that, at some of its most tense moments, it was Cuban forces that risked escalation, not American or Soviet forces.[14] American reconnaissance aircraft were subject to ground fire on multiple occasions. According to Richard Ned Lebow, 'Cuban bellicosity stood in sharp contrast to Soviet military caution', and Moscow was unable to completely control its ally.[15]

A great deal of attention has also been paid to escalation risks since the February 2022 invasion of Ukraine by Russia, prompted by, among other things, dangerous and frequent nuclear threats by President Putin.[16] Nonetheless, calls for NATO or American intervention early in the war, such as in the form of a 'no-fly zone', often came without due consideration of how such an option would be implemented and the attendant risks of direct conflict between NATO and Russian forces, potentially triggering NATO Article 5 obligations, and therefore potential escalation to a regional, and possibly nuclear, war.[17]

There are significant lessons to be learned from the Ukraine–Russia War, but it's also true that the situation in Europe isn't identical to that in our own region. Add to this that Australia itself has comparatively little recent experience of major crisis management. Therefore, there's a pressing need to develop a shared understanding of regional escalation dynamics between the US, Australia and other key regional allies.[18]

Potential war and the US–China balance in the Western Pacific

The first step towards improving crisis management in the Western Pacific is understanding the relevant features of US–China strategic dynamics.

Russia's disastrous experience in the early phases of its invasion of Ukraine since February 2022, the problems that Ukraine has experienced in retaking territory and the current effective stalemate in that theatre have strengthened the view that we live in a world of defence dominance. In that view, the incentives for war are restrained because successfully executing an offensive campaign (such as a territorial conquest) seems very difficult or costly.[19] The idea of an offence–defence balance is a contested one among strategic studies scholars (for instance, it isn't really possible to categorise specific weapons as offensive or defensive), and it has to be emphasised that the balance is a constantly evolving one.[20] But it's nonetheless useful to think about whether it's easier to take or defend territory at a particular point in time.

The first reason for thinking that defence presently has an edge is the continuing existence of nuclear weapons as part of the international order. Put simply: some academics and strategists think that the risk of escalation to nuclear exchange has permanently disincentivised offensive action between nuclear-armed countries or blocs, although Cold War strategists constantly debated the credibility of nuclear threats and the possibility for conventional war below the nuclear threshold.[21]

Second, recent improvements in and proliferation of long-range sensors and weapons appear to have significantly raised the cost of power projection.[22] In the air and sea domains, this is typically referred to by the shorthand term 'anti-access/area-denial' (A2/AD). Recent experiences have also shown the potential levels of lethality offered by relatively cheap sensors such as small drones combined with massed long-range surface fires in support of land manoeuvre.[23] Australian authors have written about this situation extensively, and acquisitions across all three services reflect an appreciation of this problem set.[24]

At first glance, these fundamentals might seem reassuring. The US–China relationship is framed by both the mutual possession of nuclear weapons, even if the US stockpile is substantially larger at present,[25] and the Western Pacific is an operating environment conducive to the employment of A2/AD systems.

There are, however, at least four important reasons to be concerned about the potential for inadvertent and accidental escalation, as well as pre-emption, in regional crises. In sum, they suggest that an overoptimistic view of regional escalation pressures would be in error.

Uncertainty and the maritime domain

The first reason for concern is the nature of the Indo-Pacific, and specially the Western Pacific. Most thinking on crisis stability and deterrence has focused on the Cold War confrontation between NATO and the Warsaw Pact along a European land border and the associated contours of the US–USSR nuclear relationship. But the Indo-Pacific is principally a maritime theatre. It's been argued that the maritime domain may be less prone to inadvertent escalation and disastrous miscalculation. Ships are inherently mobile, and when they withdraw from a confrontation that doesn't *ipso facto* represent the ceding of ground, making a backdown more politically palatable.[26] Another example is submarine deployment, which is something rarely publicly signalled and therefore withdrawable without loss of face. In other words, a level of ambiguity about forces in the maritime domain, or an ability to shift intent and narrative or maintain deniability, may offer opportunities for maintaining stability.

But those same attributes of the maritime domain could also be interpreted as reasons for concern. To begin with, offence–defence distinguishability is very low at sea.[27] For instance, the Washington Conference in 1921–22, which was an attempt by the major powers to limit the naval arms race, struggled to define offensive capability. The vertical launching system (VLS) ubiquitous on Western warships is a prime contemporary example of this problem. An adversary doesn't know whether VLS cells contain anti-air missiles for self-defence, land-attack missiles for long-range strike, or the next-generation stealthy anti-ship missile currently under development for the US military. Submarines and the contents of their magazines pose a similar problem.

And some analysts have noted that 'modern warships have glass jaws'—that is, they're vulnerable, if not to sinking, then to being put out of action by even a single missile or torpedo hit.[28] This arguably leads to a dynamic in which 'whichever side completes the targeting chain first and fires first almost always wins', and creates a powerful incentive to pre-empt.[29] In other words, ships that can be discovered are very vulnerable. There can, therefore, be a major advantage in shooting first when conflict seems imminent. This suggests the potential for maritime scenarios in which escalation pressures are very strong.

The longstanding naval preoccupation with presence can also be read as the capacity to act with little warning, and sea power has specific characteristics that produce uncertainty and ambiguity.[30]

The doctrine and concepts underwriting the employment of naval platforms reflect those features. The various iterations of US maritime doctrine—air–sea battle, joint concept for access and manoeuvre in the global commons (JAM-GC), now distributed maritime operations (DMO)—are highly offensive ways of operating. Some analysts have rightly noted this doctrine as escalatory. As Jonathan Caverley and Peter Dombrowski have argued:

> [A]t the minimum, it appears the USN will focus on destroying the PLAN fleet and associated island bases in the South China Sea should a conflict erupt. At the maximum, it, along with the [US] Air Force, is preparing for a rapid, blinding assault on the Chinese mainland to remove any Chinese capability for denying US access beyond the twelve nautical miles of the territory the United States recognises as Chinese …[31]

It isn't surprising that these concepts are so offensive in nature: the US military is expected to develop options that offer the prospect of military victory in a US–China conflict. Assuming that neither side wishes to engage in nuclear war, the focus for analysis should be on whether US and Chinese force structures and plans increase the risks of inadvertent or accidental escalation, pre-emption and loss of control. In other words, which features of the strategic dynamic between the US and China raise the risk of escalation?

In short, contemporary naval capabilities are ambiguous in intent and nature, creating the possibilities for inadvertent and accidental escalation, and the vulnerability of critical capabilities in a missile exchange creates pressures for pre-emption.

New domains and novel technologies

There's a great deal that we simply don't understand about space, cyberspace, the contemporary information environment and a whole raft of emerging technologies. Classic case studies like the July crisis of 1914 are richly instructive in some ways but have their limits in the 2020s; knowing what to heed and what to ignore is tough at the best of times.

For example, would the targeting of space-based systems inevitably lead to terrestrial escalation? Or, more specifically, what level of degradation to space-based systems would each power be willing to tolerate? To what extent do innovations such as autonomous weapon systems and hypersonics further incentivise first strike? How will a diffused, controlled and manipulated information environment inhibit coherent and trusted communication between crisis actors? A complete treatment of any one of those issues is beyond my scope here. Several tentative implications will have to suffice.

There are some limited reasons for optimism. For instance, experience thus far with uncrewed platforms seems to suggest that the targeting of uncrewed systems isn't viewed with the same weight as the targeting of a crewed platform.[32] Even that norm, however, could (perversely) increase the risk of escalation if it lowers the threshold for the use of force, or if the two combatants have different assessments of the significance of an attack on an uncrewed platform. And, as such systems proliferate further and their spectrum of cost and capability grows, calculations will change.

There are, however, more substantive grounds for concern. Considering cyber capabilities as an example, is it possible to target critical parts of a nation's command-and-control architecture in a limited fashion?[33] How reliant are both the US and China on vulnerable space-based command-and-control assets? Do the US and China adequately understand potential linkages between their nuclear and conventional command architectures?[34] If autonomous weapon systems facilitate fighting 'at machine speed', that seems likely to generate escalation pressures and incentivise first (and multiple) strike.[35]

Moreover, our understanding of how accidents happen points to a linked concern. As the complexity of the weapons systems involved in the military balance soars, we should expect more things to go wrong.[36] More so-called 'normal accidents' will indeed be normal.[37]

Hypersonics are another important development. Russia, China and the AUKUS partners (in Pillar 2 efforts, which complement existing bilateral programs) are all in the process of developing and deploying hypersonic weapon systems,[38] and a test by the People's Liberation Army (PLA) in 2021 reportedly surprised American analysts.[39] The significant launch signature of hypersonic weapons means warning will be still possible, as with traditional ballistic missiles. But, depending on launch platform and location (potentially VLS systems at sea), the time from launch to target may be very short.

Furthermore, because those weapons are manoeuvrable in flight, assessment of their intended target will be very difficult. This could raise concerns about decapitation strikes against national leadership or critical military infrastructure, for example, incentivising 'hair trigger' retaliatory postures, potentially including nuclear forces. The risks are accentuated by potential ambiguity over whether new platforms such as hypersonic glide vehicles carry conventional or nuclear payloads (referred to as 'warhead ambiguity'). As James Acton has written, 'Is it a nuke?' once again becomes a key question.[40] And that question might be asked under great pressure and with precious little time.

Even ignoring nuclear concerns, as another analyst has observed, 'hypersonic weapons may be so difficult to intercept that they may usher in an era of offence dominance in conventional-strike warfare'.[41] The incentive to launch first might therefore be very strong under crisis conditions in which war is widely believed to be imminent.

In sum, the interaction of newly prevalent domains and emergent technologies under crisis conditions introduces a set of significant unknowns into the mix, and technologies such as hypersonic glide vehicles are likely to introduce strong pre-emption pressures.

Unknowns in the nuclear balance

There remains uncertainty about nuclear deterrence dynamics between the US and China.

The concept of 'entanglement' in this context refers to the overlap of nuclear and conventional force structures and operations. A range of analyses have highlighted the entanglement between China's conventional and nuclear force structures.[42] While analysts hold different views, it's possible that entanglement in China's forces may reflect efficiency measures and bureaucratic infighting more than a clear strategic rationale, such as deterring attacks against Chinese conventional forces.[43] Whatever the cause, the physical reality of entanglement remains the same. Key new PLA weapons systems are dual-use, such

as the DF-26 missile, and there have apparently been growing efforts to integrate Rocket Force formations into China's nascent, integrated theatre commands.[44] Inadvertent entanglement of systems would indicate dangerous complacency by Chinese military planners, implying that nuclear risks aren't being taken sufficiently seriously.

Some assessments, including from the US Government,[45] and open-source satellite imagery[46] indicate that China's nuclear arsenal is now on a substantial and accelerating growth trajectory, narrowing the gap with the US arsenal, although it should be noted that doubts have been raised about whether PLA corruption is degrading some capabilities.[47] Whatever the pace of the expansion in Chinese nuclear forces, the command-and-control arrangements and operational employment of China's deterrent demand close observation and analysis. For example, what are China's launch policies? What positive and negative controls are in place on different launch platforms? Western intelligence agencies will already be focused on those questions, but reliable assessments will be complicated by the opacity of the Chinese system. The lack of transparency over Chinese nuclear doctrine is exacerbated by Beijing eschewing participation in arms-control negotiations and restricting channels of military-to-military dialogue.

Many analysts have argued that China's nuclear doctrine may be influenced by a sense of vulnerability to a US first strike. Those analysts often point to the putative vulnerability of China's small fleet of ballistic missile submarines (SSBNs), which it's in the process of upgrading.[48] While China is also strengthening the airborne leg of its nuclear triad, the weight of its nuclear strategic deterrent currently rests on its land-based missiles.

In a war between China and the US, a key question would be how much degradation Beijing would be willing to accept in its rocket forces with regional range, such as the DF-21 and DF-26.[49] Those are the crux of entanglement in China's rocket forces. Given that the intermediate-range missiles threaten US bases and warships in the region, they would be high-priority targets for the US and any allied forces in a war. Because of warhead ambiguity, the US might unintentionally destroy Chinese nuclear-armed missiles, which Beijing might interpret as a significant threat to its overall deterrent.

China's nuclear intercontinental ballistic missile (ICBM) arsenal, on the other hand, is clearly distinguishable, at least for the time being.[50] Escalation may be avoided if Beijing remains confident that it has adequate warning to launch a second strike using its ICBM force. But that makes assumptions about Chinese perceptions and nuclear doctrine. If Beijing's threshold for escalation lies elsewhere, and we don't know whether it does, there's cause for grave concern.[51]

The escalation risk of targeting early-warning and command-and-control systems, including satellites, is significant.[52] The problem of entanglement is also relevant in this context. Space-based systems will be critical at all stages of a conflict, across hybrid, conventional and nuclear thresholds. Even if space-based assets were able to be ring fenced for nuclear or non-nuclear use, which is questionable, it's unlikely that the targeting country could make that distinction confidently in wartime. Equally, direct ascent 'kinetic' kill antisatellite capabilities produce debris fields that may indiscriminately destroy a wide array of space-based assets, potentially including those of nuclear powers that weren't at that point parties to the conflict. This cocktail of variables has highly escalatory implications.[53]

Uncertainty over the targeting of early-warning and command-and-control systems is particularly relevant to Australia, which hosts capabilities that support US extended deterrence, including the Australian Defence Satellite Communication Station.[54]

Human frailty

Finally, because human error is an ever-present risk, we must not reduce any analysis of escalation risks to schematic rational calculations.[55]

Leaders are often ego-driven, and public sentiment and emotions shape individual decision-makers' environments. Analysts must make shaky deductions from partial information. Commanders sometimes do downright dangerous things. During the Cuban missile crisis, Kennedy perceived Soviet actions in a highly personalised way. In his mind, this was an attack on the President himself: 'He can't do that to *me*!'[56]

Sometimes things are done without authorisation. During the crisis precipitated by the Soviet shootdown of KAL 007 in 1983, relatively junior US Air Force officers dispatched combat aircraft from Japan to near the Soviet island of Sakhalin, apparently with the unauthorised intention of provoking an incident.[57]

The Cold War also saw a terrifying number of near-miss accidents with nuclear weapons for other reasons, including many subjective decisions to ignore early-warning systems, precipitated by anything from reflected sunlight in satellite sensors to the mistaken use of exercise simulation tapes in live systems.[58]

The potential integration of new forms of automation and artificial intelligence (AI) into command-and-control systems, both nuclear and conventional, would affect those decision-making processes in complex ways. While this impact will be (and probably already is) nuanced, one likely possibility seems to be the further compression of decision-making time frames.[59] The US has already publicly rejected so-called 'dead hand' systems, which automate nuclear retaliation, and which according to old Soviet theory strengthen deterrence.[60] The US doesn't share that view and has committed to a human in the loop in all nuclear command and control. Discussion about the inclusion of greater automation and AI in nuclear forces is only growing, though, especially while there are concerns that one side might gain a significant advantage by incorporating those technologies first.

There are whole libraries on the flaws and pitfalls of nuclear decision-making under suboptimal, real-world conditions.[61] The point here is simply that nothing has changed about the potential for the humans involved in such high-stakes decisions to do terribly dangerous and ill-considered things. And there's a good chance that technological innovations could exacerbate rather than mitigate those human frailties.

In summary, the ambiguity built into the maritime domain, the uncertainty introduced by new technologies, ongoing unknowns in the US–China nuclear balance, and the ever-present potential for human error should all be cause for great and ongoing concern. Nothing about the nuclear or broader military balance should be assumed to be stable.

Particular concerns include the preference of some military planners for offensive action,[62] as well as the faith that analysts believe China places in the controllability of escalation, including below the level of 'war'.[63] Understanding those risks is important for policymakers in countries like Australia.

Military modernisation across the region is also an important but understudied factor in the strategic balance. Analyses that focus only on the US–China dynamic can underplay the potential agency of other important players. As Johnathan Caverley and Peter Dombrowski from the US Naval War College have argued, 'potential interactions [between forces in the Western Pacific] become numerous and more complex when we consider the increased maritime activity of formal US allies.'[64]

Australia is one such formal US ally. How Australia acts as a contributor to, or facilitator of, those dynamics is important. What are some prospective scenarios in which Australia might find itself faced with such potentially consequential decisions?

Crisis scenarios

There are three key sources of potential crisis in the Western Pacific that could involve both the US and China in a conflict: the Korean Peninsula; Taiwan; and a militarised dispute between China and another claimant state in either the South or the East China Sea. This is far from an exhaustive list, and other flashpoints, such as the China–India border, bear noting.[65]

This threefold formulation bears resemblance to Canberra-based strategic studies academic Brendan Taylor's *The four flashpoints*, which remains an excellent primer on regional risks from a political perspective. I don't discuss the details of East and South China Sea politics and capabilities in any depth in this report. Taylor's work is also instructive in referring to the late and well-known Australian scholar Coral Bell's idea of a 'crisis slide',[66] which is important because those potential flashpoints are deeply interrelated. To paraphrase Coral Bell, crises may well come not as discrete 'boulders' but instead as a crumbling mountainside.[67]

Below, I outline these potential sources of crisis, then provide a schematic list of the thresholds that might be involved in escalation. Finally, I suggest some broad ways that Australian decision-makers might consider contributing militarily to those scenarios, highlighting the relevance of such responses to the trajectory of a given crisis.

The Korean Peninsula

A very serious crisis centred on North Korea remains a real possibility. The drivers could come from within North Korea, through international tension, or some combination of both.

In 2015, Peter Varghese, while Secretary of the Department of Foreign Affairs and Trade, speculated that North Korea might collapse under the weight of its own economic gravity and contemplated the future of the Korean Peninsula in terms of when, rather than whether, reunification will occur.[68] Even if the North Korean regime doesn't collapse, there's potential for a succession crisis within the regime, in which the alignment and conduct of the military could be crucial.[69]

Domestic instability in North Korea would pose a range of problems for the international community. The safety of North Korean nuclear weapons would be a pre-eminent concern.[70] A large-scale humanitarian catastrophe, which could drive migrants across the Chinese border, would be another concern, and the regional and international community would need to be mindful of Beijing's equities in how the crisis were handled. The US, South Korean and Chinese militaries would probably need to be involved in managing such eventualities and could potentially be acting in close proximately to each other inside North Korea in the event of a regime collapse. In such situations, the potential for misunderstanding resulting in either accidental escalation or pressure to pre-empt could be very real.

A crisis on the Korean Peninsula could also be more immediately international rather than domestic. For instance, the North Korean regime might miscalculate the tolerance of a future US administration for nuclear brinksmanship, or a US administration might miscalculate the regime's own thresholds.[71] Some research suggests that the North Korean regime consistently responds to US – South Korea joint military exercises as a serious security threat, not mere theatre, providing a regular basis for miscalculation.[72] And there's plentiful space for accidents with tragic outcomes, including involving third countries. For instance, a North Korean missile test over Japan could misfire and hit a populated area, dramatically escalating tensions.

Whatever its cause, a crisis on the Korean Peninsula would almost certainly involve both the US and China. Any crisis or conflict could involve heavy fighting, potentially including the use of nuclear weapons, close to the Chinese border. The need to avoid inadvertent or accidental escalation with China because of allied actions on the peninsula would clearly be a pre-eminent concern.

Russia would also be a factor in any crisis scenario because of its border with North Korea, its close relations with the regime in Pyongyang, its new 'no limits' strategic partnership with China and its historical place at the table in formats such as the Six Party Talks. The prospects for Moscow playing a constructive crisis-management role look very dim, at least while Vladimir Putin leads Russia.[73]

Taiwan

Taiwan is probably the most frequently cited potential flashpoint between China and the US.[74] A range of triggers could prompt a crisis in or around the Taiwan Strait, including a unilateral declaration of independence from Taipei (fairly unlikely to happen), or a decision by Beijing to ratchet up military, economic and political pressure (including interference) on, or even to invade, Taiwan. While some analysis of those possibilities has tended towards alarmism (given just how difficult and costly an invasion of Taiwan would be),[75] war over Taiwan remains a real possibility.

A direct attack against Taiwan would be a dramatically escalatory first move from China. Were China seeking to invade and occupy Taiwan, it would need to launch extensive and overwhelming preliminary strikes to facilitate access for amphibious transports and major surface vessels. We could expect cyberattacks on command-and-control infrastructure and potential antisatellite attacks (using either physical or cyber means). Those attacks may extend to US systems, or even to US forces based in the region.[76]

The US might respond to a direct Chinese attack on Taiwan in several ways. The US's resolve to oppose the invasion directly would be stronger were US forces, systems or its homeland targeted, but it's possible that the US might intervene militarily even if China directed its initial campaign only against Taiwan. Historically, the US has sought to maintain ambiguity about this calculation. Broadly speaking, a direct US military response would involve US maritime forces manoeuvring in the Western Pacific and striking Chinese capabilities, employing some version of DMO. Such a direct US response has been critiqued as being, in turn, highly escalatory because it's likely to be operationally necessary for US strikes on Chinese capabilities (for example, on mainland-based command-and-control architecture, missile launch sites and so on) required to establish and maintain American freedom of manoeuvre.[77]

Some analysts have suggested that a blockade could pose less risk to the US fleet, as well as being less escalatory, leaving open greater opportunities for a negotiated settlement.[78] The specifics of such a course of action would include the extent, proximity and enforcement of any trade restrictions, which would be crucial decisions. It should be noted that there are important international law implications of an unambiguous blockade, either as a complement or an alternative to direct military intervention on or near Taiwan, and some analysts question the potential efficacy of a blockade.[79] Some of that analysis reveals how important US allies' maritime capabilities might be in sustaining such a blockade, especially if US forces were needed for certain combat operations at the same time.[80]

Conversely, a Taiwan crisis could also be precipitated by a Chinese military or militia blockade of the island as part of a pressure campaign to seize Taiwan without fighting.[81] The US would then have to choose whether to risk escalation to break such a blockade.

A militarised dispute in the Western Pacific

A crisis or conflict could start between China and one of the countries with which it has a sovereignty dispute in the Western Pacific, such as Japan, the Philippines or Vietnam. That could involve the US if Washington intervenes to support China's adversary (note that it has security treaties with Japan and the Philippines).[82]

China's expansion in the East and South China seas is about more than just the disputed features. Some sovereignty claims engage natural resources and military access, and China may be attempting to create a so-called 'bastion' to defend its ballistic-missile submarines.[83] The occupation of islands and features provides potential military advantages but also engages wider interests in national influence and sovereignty.

Brendan Taylor's work provides a useful summary of the different risks present in the East and South China seas. He argues that the East China Sea and the China–Japan relationship are of greater concern than the well-covered tensions in the South China Sea. That assessment reflects domestic politics in China and Japan, clearer US commitments to Japanese defence, and Japan's own capabilities.[84]

Were conflict to be initiated unintentionally, such as by an accident at sea, then fighting may be limited, without strong pressure to escalate, even if the US becomes involved. However, China might intentionally use limited use of force against a regional state, anticipating that its adversary will back down due to real or perceived risk aversion.[85]

The US response in such a scenario would depend on a range of factors, including the extent to which the conflict started as a clear result of Chinese aggression and US security obligations to China's adversary. If both sides were committed to limiting conflict to a confined geographical area, as was largely the case with the exclusion zones announced in the 1982 Falklands War, then it's theoretically possible that the war wouldn't escalate even if the US became involved, but that could be difficult to achieve in practice.

In either a *prima facie* containable accident or an overt use of force against a regional US ally by China, the question of where each state's thresholds for escalation lie would be the key to determining how such a crisis might play out. It's important to note that there's a current lack of engagement and communication on these issues between the US and China (although there are also encouraging signs that those may be opening), so accurately understanding thresholds and how they may change in specific contexts is extremely difficult.

Salient thresholds

A range of thresholds might apply across these scenarios. The thresholds could be crossed deliberately or through inadvertent escalation. Salient thresholds include:

- targeting of mainland Chinese command-and-control architecture, especially where those assets are entangled with China's nuclear deterrent
- targeting of space-based capabilities, of either the US or China, when the true significance or perceived value of a particular asset is not appreciated (this is probably well understood for military assets, but uncertainty might be significant for commercial assets that have military utility, for example)
- targeting of mainland Chinese missile sites, particularly those that house dual-use systems
- cyberattacks on critical infrastructure of a regional country, perceived as the preliminary action to a broader offensive
- establishment of a blockade, by either the US or China, and subsequent decisions about the enforcement of any such blockade

- movements of troops and other relevant assets by China or by Taiwan, the US and allies, and perceived to be preliminary movements for active military operational purposes (noting that the cover of exercises can be highly destabilising where there is no trust); this could include preliminary movements for action against Taiwan by China
- the movement of some certain configuration of strike assets into the theatre by the US and allies, perceived by Beijing to be setting the conditions for an offensive campaign; for example:
  - movement forward of strike aviation to the Philippines, Japan or another location in the Western Pacific
  - movement forward of additional aircraft carriers or attack submarines into the region well above peacetime baselines; the latter would surely not be unambiguous, although Chinese subsurface detection capabilities or broader intelligence collection could make this relevant to decision-making
- US-led forces crossing some geographical threshold on the Korean Peninsula, should a crisis have evolved to conflict or should humanitarian intervention be occurring following a regime collapse
- the loss of a ship or ships with loss of life, by any involved state.

While regional strategists should be able to readily list scenarios like these, they can't be confident about how either the US or China would interpret such events as a threshold for a pre-emptive strike or other forms of purposeful escalation.

Accidental escalation is also a possibility, including via:

- an accident at sea between warships that seriously damages a major surface combatant or combatants
- loss of a submarine in ambiguous circumstances
- an accident involving nuclear weapons, which might occur in third countries or at sea if nuclear weapons systems have been forward deployed
- sensor and computer errors, akin to the 'sunlight in satellites' and similar cases experienced during the Cold War, leading military commanders or national leaders to erroneously believe an attack is taking place.[86]

The complex interactions between the sequence of events, the imperfect flow of information and the pressures on decision-makers mean that we can't be certain where specific thresholds for escalation lie. The point is that escalation, whether controlled or accidental, is a serious risk. And, as the late American academic Thomas Schelling, one of the most influential postwar deterrence theorists, argued, decision-makers may try to exploit uncertainties about the control of escalation to pressure their adversaries into backing down.[87]

Prospective Australian contributions

Australian leaders would be likely to face calls to contribute in some way to US-led efforts in each of the regional crisis scenarios outlined above. An Australian Prime Minister would confront consequential decisions that could be implicated in many of those potential thresholds.

Recent experiences appear to substantiate that presumption. The public reaction of the Australian Government to the last crisis on the Korean Peninsula, in 2017–2018, strongly suggests that substantial military involvement would be under consideration in some future scenario there.[88] Moreover, reporting about the Australian Government response to the MH17 shootdown in the Ukraine in 2014 suggests that some national decision-makers might have far higher risk appetite for military contributions than many might assume.[89] Additionally, some analysts assume that a significant Australian role in regional contingencies would be expected.[90]

The Australian Government would have a range of options to respond to American or to regional partners' calls for participation or support. Of course, the examples that follow here are illustrative and not mutually exclusive.

A range of maritime options would probably be considered. For example, a number of surface combatants might perform useful functions as part of a US-led naval taskforce. In the nearer future, that would be likely to be centred on available Hobart-class destroyers (DDGs). Should the contingency centre on some variant of a blockade, less capable Anzac-class frigates (FFHs) could have some role. The Future Frigate program, which should start delivering ships into RAN service perhaps as early as 2033, expands Australia's capabilities and options.[91] Those vessels have varying levels of capability to attack land targets, to engage enemy shipping or submarines, and to provide air and missile defence for themselves and other vessels nearby. Supporting capabilities such as supply vessels or a helicopter-carrying LHD might be considered useful in certain contingencies.

Submarines would be another obvious contribution, be it for offensive activities or intelligence collection or as a blockade enforcer or breaker. In the immediate term, the RAN can probably make available two Collins-class boats, although only a single boat may be on station at a given time, depending on factors including how far the boats are operating from port.[92] The AUKUS submarine project is intended to deliver nuclear-powered submarines (SSNs) that will dramatically expand the government's options in this area, commencing with American-built Virginia-class boats in the early 2030s.[93]

Air component options would be similarly broad. The centrepiece of the RAAF's capability has become the US-made F-35 joint strike fighter, and the commitment of a squadron or more of such aircraft could be requested by the US as an interoperable complement to its own forces. The US would be likely to have demand for other scarce, interoperable force-enabling platforms, such as the E-7 early warning aircraft, EA-18G Growler electronic warfare jets and KC-30 refuellers.[94] Depending on the mix of assets and the weapons they bring, it's possible to imagine Australian forces being integrated into any number of US-led operations in the region, including intelligence, surveillance, targeting and reconnaissance; logistical support; or striking air, land or sea targets.

Land force deployments for combat or stabilisation might be contemplated in a range of scenarios, notably for contingencies on the Korean Peninsula. As the Cold War showed, while the risk of dramatic escalation may help prevent direct US–China confrontation, competition could spill over into proxy wars elsewhere in the region, which might engage Australian land forces. It's harder to envisage Australian land forces being deployed to Taiwan. Even a small pre-conflict commitment of land forces to Taiwan would send a very strong political signal, potentially acting like a 'tripwire' that binds Australia into any conflict, which is unlikely to be an unattractive option for any Australian Government.[95]

Perhaps more likely, any Australian land component might be called upon to contribute land-based strike capabilities on the periphery of a crisis, once such capabilities have been acquired,[96] or provide niche special operations effects as part of a US-led effort.[97] Additionally, Australian taskforces centred on a land component might already be deployed somewhere in the region when a crisis occurs; for example, conducting a training mission with a regional partner or a stabilisation task as part of a multinational force.

Australia could also contribute intelligence collection and offensive cyber capabilities, either in conjunction with a more traditional military commitment or as a stand-alone commitment.[98] Since the Turnbull government disclosed that Australia holds offensive cyber capabilities in 2016, the Australian Signals Directorate has received $9.9 billion over a decade to triple offensive cyber capabilities through Project REDSPICE, and cyber has been included as an advanced capability under AUKUS Pillar 2.[99] However, substantive details about Australia's offensive cyber capabilities remain classified.

There are two points of note about this range of options.

First, the range of maritime, land and air contributions available to Australian leaders are—by design—able to integrate into US-led maritime taskforces and other operations, which makes them capable of participating in the kinds of operation envisioned in DMO. Australian leaders therefore need to understand the potential implications of such operating concepts for escalation and strategic stability.

Second, Australia already possesses a range of capabilities that could have significant but quite uncertain escalatory impacts on their own. Offensive cyber effects are the obvious current example; but Australia's acquisition of cruise missiles, hypersonic missiles and SSNs will influence escalatory dynamics in the future. Space capabilities are highly valuable and sensitive, and they have both traditional and evolving roles in deterrence that are very important to understand. It's crucial that those capabilities are considered in the full context.

Recommended mitigations

There are a range of options for mitigating the escalation risks in the region. Some of these recommendations reflect thinking already occurring at senior levels of the Australian Government.

Recommendation 1:

- Support, publicly and privately, the establishment of crisis-management mechanisms at the operational and strategic levels between the US and China as a risk-mitigation measure.
- Pursue options for Australia and China to improve operational and strategic-level communications without making concessions. This is clearly in both countries' interests.

Australian leaders should support sensible crisis-management mechanisms at both ministerial and official levels. While elements of that work may be revealed to the public, support could also take the form of private advocacy with the US, China and key regional partners to establish such mechanisms. This appears to be a government priority already. For instance, Foreign Minister Penny Wong's speech at the UN General Assembly in September, which preceded Prime Minister Albanese's visits to Washington and Beijing for leader-level meetings in October and November, could be interpreted as a call for better dialogue and crisis-management mechanisms between the US and China.[100]

Some of this work should focus on the operational level, where militaries brush up against each other from day to day. The Incidents at Sea Agreement, or INCSEA, which was signed in 1972 between the US and USSR and remains in force, aimed at reducing the risk of dangerous incidents at sea between those two great powers.[101] Some analysts have argued that the working-level nature of this agreement has been the key to its quiet success.[102] In 2014, the Code for Unplanned Encounters at Sea, or CUES, was signed in Qingdao, China, providing a set of non-binding rules-of-the-road, aimed at preventing accidents that could be escalatory.[103] The RAN has played an important role in the development of CUES since 1999, so this is a potentially instructive example of how Australia can play an active role in building such measures.[104] However, CUES has been a limited success. China was late to join the agreement, which doesn't go as far as the INCSEA predecessor, and PLA Navy (PLA-N) conduct at sea since 2014 hasn't been reassuring. It has included brazenly dangerous PLA-N actions at sea concurrent to the 2023 Shangri-La Dialogue and, more recently, PLA-N actions in the East China Sea that caused minor injuries to Australian sailors from HMAS *Toowoomba*, which had been operating in full accordance with international law at the time.[105]

While CUES operates at a narrow and technical level, at the other end of the spectrum are military leadership or political-level 'hotline'-type mechanisms for dialogue between the great powers. The history of this kind of link between the US and China is, at best, patchy, and theorists have rightly pointed out that such mechanisms can be abused and manipulated.[106] Chinese leaders have reportedly cut off one such crisis line on at least two occasions, clearly rendering it useless in the very situation for which it's designed.[107] Indeed, manipulating ambiguity and opacity through such actions could be understood as a deliberate approach by China's leaders. China's strategic culture and its implications for crisis stability are a subject demanding more analysis in its own right.[108] Nevertheless, Biden and Xi announced the welcome resumption of some forms of military-to-military dialogue following their meeting at the APEC summit in California in November 2023.[109]

Establishing crisis-management mechanisms requires genuine engagement from all parties. This is more important when the state of US–China or Australia–China relationships is negative, as the crisis mechanisms are likely to be needed most when bilateral relations are strained. Unfortunately, China hasn't shown a strong

or consistent desire to support crisis management. Nevertheless, Australian diplomacy should continue to support effective crisis management where and whenever possible.

Recommendation 2:

- Continue and improve crisis-simulation exercises, in which national decision-makers should participate.

David Schaefer has written that 'Reflecting Canberra's limited strategic role in the Cold War, there was little effort to prepare for high-level crisis management in the event of crisis.'[110] That approach is clearly not acceptable in the current era of competition.

It's been publicly reported that Australian leaders do involve themselves in crisis-management exercises, although former Australian officials have anecdotally suggested to the author that getting elected leaders' and political level participation in relevant exercises has been a persistent challenge. A recent freedom-of-information release outlines the range of official simulation activities undertaken since 2015.[111] There have been subsequent calls to improve the sophistication of such exercises, although the available open-source material is unclear about the exact nature of existing activities.[112] Exercises should incorporate inadvertent escalation, accidental escalation and pre-emption scenarios.

Australia's elected leaders need a more thorough understanding of the scope and limits of Australian military power and other tools of statecraft before being required to make decisions in a real crisis, which doesn't always seem to have been the case.[113] Appropriate ministerial involvement in and understanding of operational planning and capabilities are not micromanagement.[114] The risk of a paralysing gap between where operational planners might go and the ability of decision-makers to execute informed policymaking in a crisis is real. This is only going to become more important as new and powerful capabilities such as SSNs or hypersonics are acquired by Australia in time. The distinguishability of Australian capabilities from those of the US and other regional allies, and the relationship of a given Australian capability to adversaries' and allies' nuclear capabilities, are the kinds of considerations that should be built into the simulation exercises.

It may be wrong to assume that great-power leaders take greater interest in their military capabilities than the leaders of lower tier powers. A well-placed witness before the US Senate Armed Services Committee in June 2021 suggested she was aware of only one President participating in nuclear drills when invited.[115]

While it isn't in Defence's or the broader public service's gift alone, the security establishment should do whatever it can to ensure that elected civilian leaders are appropriately equipped for decision-making under crisis conditions.

Recommendation 3:

- Enhance investment in analytical methodologies, including strategic policy simulation and war games to better understand perceived escalation thresholds.

Australia's government, academia and think tanks can't hope to replicate the resources available to the US to study, analyse, model and war game deterrence and escalation. The level of expertise within government is hard to gauge from open-source material, but officials privately concede that there are now fewer genuine experts and practitioners in government on topics such as nuclear strategy, arms control and nonproliferation, deterrence and strategic stability than during the latter half of the Cold War. The debates surrounding AUKUS and the need to give effect to the centrality of deterrence in Australia's National Defence Strategy make clear the pressing need to restore this muscle memory.

Despite Australia's limited resources and generally enviable strategic circumstances for much of the postwar period, in which our geography and our strong relationships offered us significant benefit, some Australian experts have been internationally recognised for their depth and contribution to work on deterrence and escalation, notably the late Des Ball.[116]

The government should substantially increase investment to better understand escalation risks and crisis stability in our region. That includes investments in understanding potential adversaries' decision-making and capabilities. It can be achieved in several ways.

First, the government should fund rigorous academic work on these issues, including the dynamics (including convergence and divergence) between great-power perspectives, notably those of China and the US, and regional powers such as Australia, Japan and Korea. This should include focused work on specific, credible scenarios, while drawing on the deep history of research on both nuclear escalation and conventional crises. Many of the canonical texts that shaped Cold War understanding of these issues remain essential reference points.[117] While some work necessitates a classified setting, it's important to add to publicly accessible resources, which are essential for widening understanding and scrutinising ideas.

Second, additional capacity should be dedicated to understanding these issues within the Australian intelligence community, if that isn't already the case. This recommendation hews very closely to former senior defence officials Paul Dibb and Richard Brabin-Smith's call to re-establish an 'indicators and warnings' function in the Australian national-security community.[118] This work might dovetail with the establishment and maturation of a net assessment process within the Department of Defence, which was a recommendation by the Defence Strategic Review accepted by the Government in April 2023.[119]

An indicators and warnings approach to strategic stability could include the ongoing net prospects for inadvertent and accidental escalation in the US–China relationship; the degree of negative and positive control of both nuclear forces and conventional militaries in the region and how that's likely to change under crisis conditions; assessments of technical and political developments that have implications for crisis dynamics; and assessments of the potential actions of Australia and other regional powers in a crisis setting. To best inform policy, including that relating to international cooperation and coordination, and to achieve deterrence outcomes, there must be a focus on understanding how actions and reactions either strengthen or undermine deterrence, how assurance and reassurance work, and analysis of the key technologies and capabilities that influence those factors.

The government should support crossover between these two investments in public research and intelligence capacity by, for example, facilitating high-classification access and engagement for and with selected academic researchers and think tankers.

Conclusion

Australian interests would be profoundly damaged by a conflict in our region. A major war would be catastrophic for our security and stability. Yet those risks are growing. We must therefore focus on understanding, preventing, mitigating and addressing the risks, including of inadvertent or accidental escalation. While acknowledging the limits of Australian influence and capability, we shouldn't underestimate the relevance and importance of the role and contribution that regional actors can and must make. We can't default to being a bystander.

Assessments of regional military capabilities emphasise the apparent ascendance of so-called A2/AD, which leads some to argue that we're living in an age of defence dominance. That runs counter to emerging debates on newer technologies and domains, such as cyber and space, which are often categorised as offence dominant with current first-mover advantages. The US and China don't share a land border, yet there's ample evidence that disaster remains possible, which should instil caution and mutual interest in de-escalation mechanisms.

There are also other reasons for serious concern, including the ambiguous nature of maritime capabilities, uncertainties about novel technologies and the nuclear balance, and the ever-present potential for human error. Those factors suggest that strategic stability in our region is far from assured and may be deteriorating.

A crisis between the US and China could be sparked by a range of factors, including developments that change the *status quo* across the Taiwan Strait, a dispute or accidental contact between claimants in the Western Pacific, and a crisis on the Korean Peninsula. Australian leaders would come under pressure to play some role in any one of those contingencies, and Australia has a growing range of capability options relevant to them.

History suggests that the behaviour of states beyond the great powers can contribute to catastrophic risks, as well as to deterrence, and the policy recommendations in this paper are aimed at enhancing Australian agency for positive effect. The capabilities that we buy and how we talk about them, exercise them and employ them inevitably affect, in at least some small way, the potential for inadvertent and accidental escalation.

As flagged at the outset, this paper has in many ways focused on the 'blue': that is, the plans, capabilities and prospective decisions of the US, Australia and other allies. We can't mitigate the risk of conflict in isolation from our strategic competitors, but focusing initially on the collective ability of our work with partners and allies reflects the fact that, ultimately, we're only responsible for our own decisions. Further work is required to develop 'blue' studies like this report into integrated assessments, which consider crisis scenarios in our region from all perspectives.

It's imperative that Australian leaders think carefully about the risks of escalation between the US, China and other regional players. Understanding those risks should help shape our approach to the US alliance and relationships with other security partners. It should also help inform both Australian military force design and posture decisions, as well as, ultimately, our wider foreign policy and statecraft.

Notes

1 Agency and guardrails are a repeated themes in the current Labor government's foreign-policy messaging. For instance, see Anthony Albanese's speech at the IISS Shangri-La Dialogue, 3 June 2023, online; and Penny Wong's National Press Club address, 17 April 2023, online. Managing strategic competition was also the focus of former Prime Minister and Foreign Minister Kevin Rudd's book, published before he became Australia's Ambassador to the US: Kevin Rudd, *The Avoidable War*, Hachette Australia, 2022.

2 James M Acton, 'Reclaiming strategic stability', Carnegie Endowment for International Peace, 5 February 2013, online. Note that debates about arms racing and arms-race stability are also relevant, but I bracket those issues out of this paper. For a good up-to-date summary of these related issues see Heather Williams, 'The future of arms control and strategic stability in the Indo-Pacific', in Stephan Frühling, Andrew O'Neil (eds), *Alliances, nuclear weapons and escalation: managing deterrence in the 21st century*, ANU Press, Canberra, 2021, 53–63, online.

3 Jack Snyder, 'Civil–military relations and the cult of the offensive, 1914 and 1984', *International Security*, 1984, 9(1):108–146, online; Jack Snyder, Keir A Lieber, 'Correspondence: Defensive realism and the "new" history of World War I', *International Security*, 2008, 33(1):174–185, online.

4 'Escalation' generally is 'an increase in the intensity or scope of conflict that crosses threshold(s) considered significant by one of more of the participants', and can of course be deliberate. See Forrest E Morgan et al., *Dangerous thresholds: managing escalation in the 21st century*, RAND Corporation, Santa Monica, 2008, 8, online.

5 Morgan et al., *Dangerous thresholds: managing escalation in the 21st century*, 23–25; see also Barry R Posen, 'Inadvertent nuclear war? Escalation and NATO's northern flank', *International Security*, 1982, 7(2):28–54, online.

6 Office of the Historian, US *Foreign Relations of the United States, 1961–1963*, volume XIV, Department of State, US Government, online.

7 Morgan et al., *Dangerous thresholds: managing escalation in the 21st century*, 26–28; see also Eric Schlosser, *Command and control: the story of nuclear weapons and the illusion of safety*, Penguin, 2014.

8 Schlosser, *Command and control: the story of nuclear weapons and the illusion of safety*.

9 There are other worrying examples from the Cuban missile crisis, such as the apparent failure of the US Navy to comply with presidential directions to narrow the blockade radius. See Richard Ned Lebow, 'Clausewitz and nuclear crisis stability', *Political Science Quarterly*, 1998, 103(1):81–110, at 105–106.

10 Nicola Davis, 'Soviet submarine officer who averted nuclear war honoured with prize', *The Guardian*, 27 October 2017, online.

11 Stephen van Evera, 'Offense, defense, and the causes of war', *International Security*, 1998, 22(4):5–43, online.

12 Nate Jones, David E Hoffman, 'New released documents shed light on 1983 nuclear war scare with Soviets', *The Washington Post*, 17 February 2021, online; Paul Dibb, *The nuclear war scare of 1983: how serious was it?*, ASPI, Canberra, October 2013, online.

13 Dibb, *The nuclear war scare of 1983: how serious was it?*; Snyder, 'Civil–military relations and the cult of the offensive'; Snyder & Lieber, 'Correspondence'.

14 For a good general account, see Michael Dobbs, *One minute to midnight*, Penguin, 2010.

15 Lebow, 'Clausewitz and nuclear crisis stability', 105–106.

16 For a small sample, see 'How real are Putin's nuclear threats to Ukraine?', *PBS*, 28 September 2022, online.

17 William Leben, 'NATO no-fly zone could lead to catastrophic escalation in Ukraine war', *The Strategist*, 17 March 2022, online; NATO, 'Collective defence and Article 5', online.

18 Stephan Frühling, Andrew O'Neil, 'Managing deterrence in the 21st century', in Stephan Frühling, Andrew O'Neil (eds), *Alliances, nuclear weapons and escalation: managing deterrence in the 21st century*, ANU Press, Canberra, 2021, 203.

19 Frank Hoffman, 'American defense priorities after Ukraine', *War on the Rocks*, 2 January 2023, online.

20 One of the most widely cited and critiqued studies of the offence–defence relationship is Robert Jervis, 'Cooperation under the security dilemma', *World Politics*, 1978, 30(2):167–214.

21 van Evera, 'Offense, defense, and the causes of war', 18, 33.

22 Stephen Biddle, Ivan Oelrich, 'Future warfare in the Western Pacific: Chinese antiaccess/area denial, US AirSea battle, and command of the commons in East Asia', *International Security*, 2016, 41(1):7–48, at 12–13, online.

23 I refer here to some of the apparent lessons from the Russia–Ukraine conflict (2014 –) and the more recent Armenia–Azerbaijan conflict (September–November 2020). See Phillip A Karber, 'Lessons learned from the Russo-Ukrainian War', The Potomac Foundation, 2015, unpublished draft, online; Shaan Shaikh, Wes Rumbaugh, 'The air and missile war in Nagorno-Karabakh: lessons for the future of strike and defense', Center for Strategic and International Studies, 8 December 2020, online.

24 For example, see Chris Smith, Al Palazzo, *Coming to terms with the modern way of war: precision missiles and the land component of Australia's joint force*, Australian Land Warfare Concept series, Australian Army, 2016, online. For an example of a relevant recent capability aspiration, see Nigel Pittaway, 'Some context around the recent Precision Strike Missile announcement', *Australian Defence Magazine*, 26 August 2021, online.

25 Stockholm International Peace Research Institute, *SIPRI yearbook 2023*, 248, online.

26 Ian Bowers, 'Escalation at sea: stability and instability in maritime East Asia', *Naval War College Review*, 2018, 71(4), online.

27 Jonathan D Caverley, Peter Dombrowski, 'Cruising for a bruising: maritime competition in an anti-access age', *Security Studies*, 2020, 29(4):671–700, online.

28 Andrew Davies, 'That sinking feeling: the future of surface combatants', *The Strategist*, 13 January 2022, online.

29 Caverley & Dombrowski, 'Cruising for a bruising', 683.

30 Eric Gartzke, Jon R Lindsay, 'The influence of sea power on politics: domain- and platform-specific attributes of material capabilities', *Security Studies*, 2020, 29(4):601–636, online.

31 Caverley & Dombrowski, 'Cruising for a bruising', 695.

32 Michael C Horowitz, 'When speed kills: lethal autonomous weapon systems, deterrence and stability', *Journal of Strategic Studies*, 2019, 42(6):764–788, at 772, online.

33 It also bears noting that there's some (arguably increasing) scepticism about bold 'cyberwar' claims. See Lennart Maschmeyer, 'The subversive trilemma: why cyber operations fall short of expectations', *International Security*, 2021, 46(2):51–90, online.

34 Erik Gartzke, Jon R Lindsay, 'Thermonuclear cyberwar', *Journal of Cybersecurity*, 2017, 3(1): 37–48, online.

35 Horowitz, 'When speed kills'.

36 Horowitz, 'When speed kills', 770–771.

37 Charles Perrow, *Normal accidents: living with high-risk technologies*, Basic Books, 1984.

38 Lauren Kahn, 'The AUKUS alliance has a lot more to offer than submarines', Council on Foreign Relations, 27 March 2023, online.

39 Kelley M Sayler, *Hypersonic weapons: background and issues for Congress*, Congressional Research Service, Washington DC, updated 2023, online; Demetri Sevastopulo, Kathrin Hillie, 'China tests new space capability with hypersonic missile', *Financial Times*, 17 October 2021, online.

40 James M Acton, *Is it a nuke?: pre-launch ambiguity and inadvertent escalation*, Carnegie Endowment for International Peace, 2020, online.

41 Dean Wilkening, 'Hypersonic weapons and strategic stability', *Survival*, 2019, 61(5):129–148, at 132, online.

42 David C Logan, 'Are they reading Schelling in Beijing? The dimensions, drivers, and risks of nuclear-conventional entanglement in China', *Journal of Strategic Studies*, 2020, online; Bates Gill, Adam Ni, 'The People's Liberation Army Rocket Force: reshaping China's approach to strategic deterrence', *Australian Journal of International Affairs*, 2019, 73(2):160–180, online.

43 Logan, 'Are they reading Schelling in Beijing?', 16–34.

44 Logan, 'Are they reading Schelling in Beijing?', 33–34.

45 Office of the Secretary of Defense, *Military and security developments involving the People's Republic of China*, Department of Defense, US Government, 2023, viii, online.

46 Matt Korda, Hans Kristensen, 'China is building a second nuclear missile silo field', Federation of American Scientists, 26 July 2021, online.

47 Peter Martin, Jennifer Jacobs, 'US intelligence shows flawed Chinese missiles led Xi to purge army', *Bloomberg*, 6 January 2024, online.

48 Adam Ni, 'The future of China's new SSBN force', in Rory Medcalf et al. (eds), *The future of the undersea deterrent: a global survey*, National Security College, Canberra, 2020, 28–31.

49 Logan, 'Are they reading Schelling in Beijing?', 30–33.

50 There are some reports that China may be considering deploying conventionally armed ICBM forces, but the evidence is circumstantial; for instance, see Roderick Lee, 'A case for China's pursuit of conventionally armed ICBMs', *The Diplomat*, 17 November 2021, online.

51 Lee, 'A case for China's pursuit of conventionally armed ICBMs'; see also James Johnson, 'Washington's perceptions and misperceptions of Beijing's anti-access area-denial (A2-AD) "strategy": implications for military escalation control and strategic stability', *The Pacific Review*, 2017, 30(3):271–288, online.

52 Gartzke and Lindsay, 'Thermonuclear cyberwar'.

53 David Schaefer, 'Australia's new alliance dynamics, US–China rivalry and conflict entrapment in outer space', *Australian Journal of International Affairs*, 2018, 72(1):31–48, at 40, online.

54 Richard Marles, 'Securing Australia's sovereignty', media release, 9 February 2023, online.

55 Lebow, 'Clausewitz and nuclear crisis stability'.

56 Lebow, 'Clausewitz and nuclear crisis stability', 91.

57 Lebow, 'Clausewitz and nuclear crisis stability', 94.

58 Schlosser, *Command and control: the story of nuclear weapons and the illusion of safety.*

59 James Johnson, 'AI, autonomy, and the risk of nuclear war', *War on The Rocks*, 29 July 2022, online.

60 Adam Lowther, Curtis McGiffin, 'America needs a "dead hand"', *War on the Rocks*, 16 August 2019, online; Michael Depp, Paul Scharre, 'Artificial intelligence and nuclear stability', *War on the Rocks*, 16 January 2024, online.

61 For instance, Richard Ned Lebow, Janice Gross Stein, 'Rational deterrence theory: I think, therefore I deter', *World Politics*, Cambridge University Press, 1989, online; John Borrie, 'Human rationality and nuclear deterrence', in *Perspectives on nuclear deterrence in the 21st century*, Chatham House, 2020, online.

62 Biddle & Oelrich, 'Future warfare in the Western Pacific'.

63 Office of the Secretary of Defense, *Military and security developments involving the People's Republic of China*, Department of Defense, US Government, 2021, 155–156, online.

64 Jonathan D Caverley, Peter Dombrowski, 'Too important to be left to the admirals: the need to study maritime great-power competition', *Security Studies*, 2020, 29(4):580–600, at 590, online.

65 For example, see Sreemoy Talukdar, 'India, China border emerging as a bigger flashpoint than Taiwan for a short, sharp war; all bets are off', *Firstpost*, 28 October 2021, online.

66 Brendan Taylor, *The four flashpoints: how Asia goes to war*, La Trobe University Press, Carlton, 2018.

67 Taylor, *The four flashpoints: how Asia goes to war*; Coral Bell, *The conventions of crisis: a study of diplomatic management*, Oxford University Press, London, 1971, 14.

68 Peter Varghese, 'An Australian world view: a practitioner's perspective', address delivered at the Lowy Institute, Sydney, 20 August 2015, online.

69 Ken E Gause, *North Korea after King Chong-il: leadership dynamics and potential crisis scenarios*, CNA, 2011, 43–54, online. Gause's analysis is focused on a previous generation of North Korean leadership but remains broadly useful.

70 Chris Quillen, 'Regime change in nuclear weapon states', *Comparative Strategy*, 2016, 35(1):15–31, online.

71 Spencer D Bakich, 'Signalling capacity and crisis diplomacy: explaining the failure of "maximum pressure" in the 2017 US–North Korea nuclear crisis', *Journal of Strategic Studies*, 27 April 2020, online.

72 Jordan Bernhardt, Lauren Sukin, 'Joint military exercises and crisis dynamics on the Korean Peninsula', *Journal of Conflict Resolution*, 2021, 65(5):855–888, online.

73 John McCurry, 'Kim Jong-un "holds hands" with Vladimir Putin as Russia–North Korea ties deepen', *The Guardian*, 12 June 2023, online.

74 For example, Caverley & Dombrowski, 'Too important to be left to the admirals: the need to study maritime great-power competition'; Biddle & Oelrich, 'Future warfare in the Western Pacific'.

75 David Stringer, 'War over Taiwan would cost world economy $10 trillion', *Bloomberg*, 10 January 2024, online; Biddle & Oelrich, 'Future warfare in the Western Pacific'.

76 Biddle & Oelrich, 'Future warfare in the Western Pacific', 15–16.

77 For example, see David Gompert, Terrence Kelly, 'Escalation cause: How the Pentagon's new strategy could trigger war with China', *Foreign Policy*, 3 August 2013, online.

78 Fiona S Cunningham, 'The maritime rung on the escalation ladder: naval blockades in a US–China conflict', *Security Studies*, 2020, 29(4):730–768, online.

79 Gabriel Collins, 'A maritime oil blockade against China—tactically tempting but strategically flawed', *Naval War College Review*, 2018, 71(2), online.

80 Collins, 'A maritime oil blockade against China—tactically tempting but strategically flawed', 767.

81 Biddle & Oelrich, 'Future warfare in the Western Pacific', 16–19.

82 Biddle & Oelrich, 'Future warfare in the Western Pacific', 15.

83 Nicholas Szechenyi, 'Platforms of mistrust: natural resource development in the East China Sea', Asia Maritime Transparency Initiative, Center for Strategic and International Studies, 2015, online; Greg Torode, Eduardo Baptista, 'Analysis: China's intensifying nuclear-armed submarine patrols add complexity for US, allies', *Reuters*, 4 April 2023, online.

84 Taylor, *The four flashpoints: how Asia goes to war.*

85 Risk aversion has been ascribed to Indonesia's approach, for example. See Evan A Laksmana, 'Indonesia', in Elina Noor (ed.), *The South China Sea: realities and responses in Southeast Asia*, Asia Society Policy Institute, 2021, online.

86 Matt Stevens, Christopher Mele, 'Causes of false missile alerts: the Sun, the Moon and a 46-cent chip', *New York Times*, 13 January 2018, online.

87 Thomas C Schelling, *The threat that leaves something to chance*, RAND Corporation, Santa Monica, 10 August 1959, online.

88 John McCarthy, 'Australia's overzealous response to the North Korea crisis', *Australian Outlook*, 31 August 2017, online.

89 David Wroe, 'Tony Abbott's office floated sending Australian troops into Ukraine conflict, defence expert claims', *Sydney Morning Herald*, 12 June 2016, online.

90 Peter Jennings, 'Xi Jinping is testing our limits on Taiwan and the West must push back', *The Australian*, 18 October 2021, online.

91 Marcus Hellyer, 'Getting real about the schedule for Australia's future frigates', *The Strategist*, 19 August 2021, online.

92 Marcus Hellyer, 'Why 12 submarines?', in Peter Jennings and Marcus Hellyer (eds.), *Submarines: your questions answered*, ASPI, Canberra, 2020, 34–35, online.

93 Department of Defence, 'AUKUS nuclear-powered submarine pathway', media release, Australian Government, 14 March 2023, online.

94 Major multinational exercises might be indicative, for example the recent Red Flag—Alaska; see Bronwyn Marchant, 'RAAF strengthens ties with US in Alaska', Defence Department, 3 September 2021, online.

95 Australian tripwire forces in the Philippines are considered in Andrew Carr, Stephan Frühling, *Forward presence for deterrence: implications for the Australian Army*, occasional research paper no. 15, Australian Army Research Centre, 2023, online.

96 Pittaway, 'Some context around the recent Precision Strike Missile announcement'

97 Ian Langford, *Australian special operations: principles and considerations*, Australian Army, 2014, 23–29, online.

98 Fergus Hanson, Tom Uren, *Australia's offensive cyber capability*, ASPI, Canberra, 2018, online.

99 Justin Bassi, Alexandra Caples, 'Australia must put cyber at the centre of national security', *The Strategist*, 11 September 2023, online; Australian Signals Directorate, *REDSPICE: a blueprint for growing Australia's capabilities*, Australian Government, no date, online; Department of Home Affairs, *2023–2030 Australian Cyber Security Strategy*, Australian Government, 22 November 2023, online.

100 Ben Packham, 'US–China dialogue needed to "prevent catastrophe": Wong', *The Australian*, 22 September 2023, online; Penny Wong, 'National statement to the United Nations General Assembly', 23 September 2023, online.

101 *Agreement between the Government of the United States of America and the Government of the Union of Soviet Socialist Republics on the Prevention of Incidents on and over the High Seas,* 1972, online; US Navy, 'US and Russian navies hold annual INCSEA consultations in Moscow', media release, 25 May 2021, online.

102 Bowers, 'Escalation at sea: stability and instability in maritime East Asia'.

103 *Code for Unplanned Encounters at Sea*, 2014, online.

104 Royal Australian Navy, 'Code for Unplanned Encounters at Sea', slide deck for ASEAN Regional Forum, no date, online.

105 'US video shows close call with Chinese warship in Taiwan Strait', *al-Jazeera*, 5 June 2023, online; Defence Department, 'Unsafe and unprofessional interaction with PLA-N', media release, 18 November 2023, online.

106 Jacob Stokes, Zack Cooper, 'Thinking strategically about Sino-American crisis management mechanisms', *War on the Rocks*, 30 September 2020, online; Rush Doshi, 'Improving risk reduction and crisis management in US–China relations', in Ryan Hass et al. (eds), *The future of US policy toward China: recommendations for the Biden administration*, Brookings, 2020, online.

107 John Garnaut, 'We value your call: US and China test hotline', *Sydney Morning Herald*, 4 April 2013, online.

108 For example, Andrea Ghiselli, 'Revising China's strategic culture: contemporary cherry-picking of ancient strategic thought', *China Quarterly*, 26 March 2018, online; Andrew Scobell, 'China's real strategic culture: a Great Wall of the Imagination', *Contemporary Security Policy*, 20 June 2014, online.

109 Ministry of Foreign Affairs, 'President Xi Jinping meets with US President Joe Biden', PRC Government, 16 November 2023, online; 'Readout of President Joe Biden's meeting with President Xi Jinping of the People's Republic of China', The White House, 15 November 2023, online.

110 Schaefer, 'Australia's new alliance dynamics', 33.

111 Defence Department, 'FOI 545/20/21', online. Note that this FOI has been removed from the Defence online disclosure log after 24 months; however, it's still available through the WayBack Machine archive.

112 Tim Hobbs, 'Australia needs a national crisis-simulation capability', *The Strategist*, 12 October 2021, online.

113 Wroe, 'Tony Abbott's office floated sending Australian troops into Ukraine conflict'.

114 Brendan Sargeant, 'Australia: Maximising discretion in an untested alliance', in Stephan Frühling, Andrew O'Neil (eds), *Alliances, nuclear weapons and escalation: managing deterrence in the 21st century*, ANU Press, Canberra, 2021, 109.

115 See Subcommittee on Strategic Forces, 'Hearing to receive testimony on United States nuclear deterrence policy and strategy', transcript, US Senate, 16 June 2021, 77, online.

116 David Wroe, 'Des Ball: the man who saved the world', *Sydney Morning Herald*, 21 December 2021, online.

117 For example, the Gray, Lebow and van Evera research cited above, as well as Thomas Schelling, *Arms and influence*, Yale University Press, New Haven, 1966.

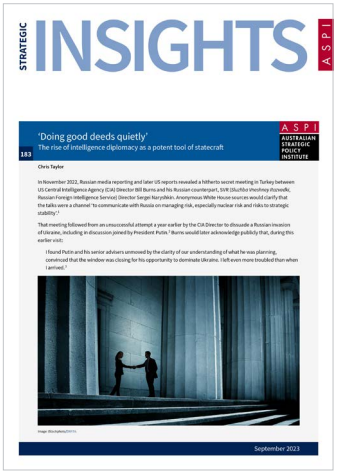
118 Paul Dibb, Richard Brabin-Smith, *Australia's management of strategic risk in the new era*, ASPI, Canberra, November 2017, 3–4, online.

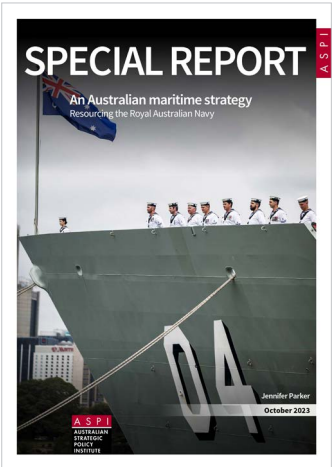
119 Andrew Carr, 'Australian strategic planning would benefit from net assessments', *The Strategist*, 1 November 2023, online.

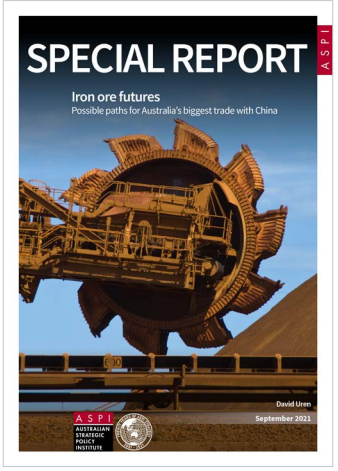
Acronyms and abbreviations

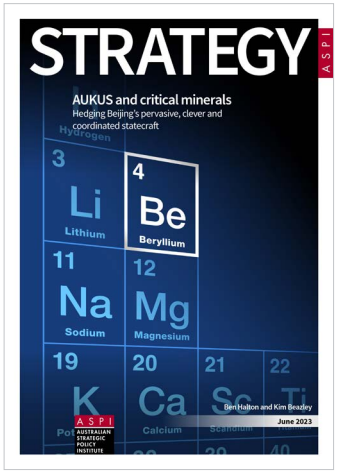
A2/AD	anti-access/area-denial
AI	artificial intelligence
CUES	Code for Unplanned Encounters at Sea
DDG	destroyer, guided missile
DMO	distributed maritime operations
FFH	frigate, helicopter
ICBM	intercontinental ballistic missile
INCSEA	Incidents at Sea Agreement
JAM-GC	joint concept for access and manoeuvre in the global commons
LHD	landing helicopter dock
NATO	North Atlantic Treaty Organization
PLA	People's Liberation Army
PLA-N	People's Liberation Army – Navy
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
SSBN	ship, submersible, ballistic, nuclear
SSN	ship, submersible, nuclear
USSR	Union of Soviet Socialist Republics
VLS	vertical launching system

Some recent ASPI publications









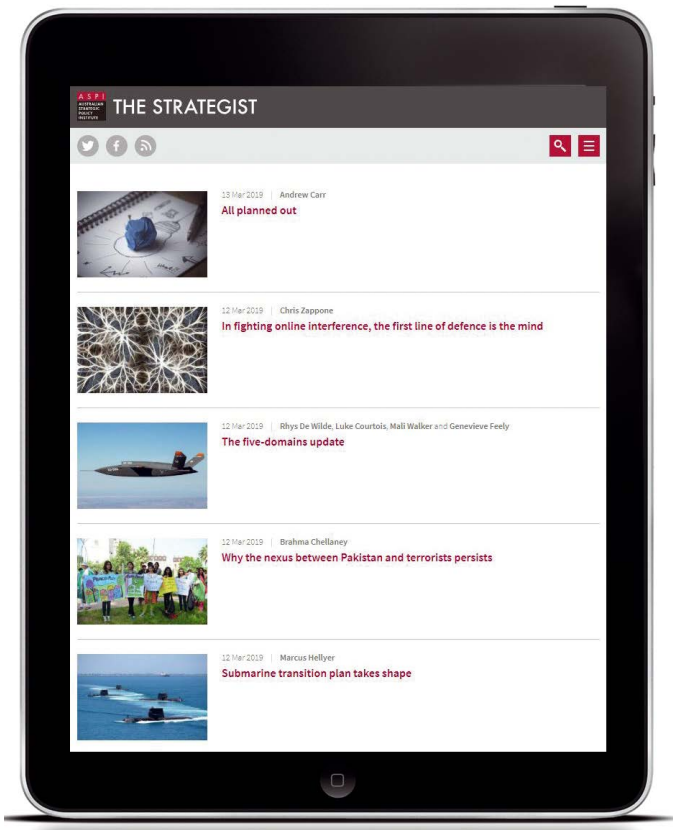
WHAT'S YOUR STRATEGY?

Stay informed via the field's leading think tank, the Australian Strategic Policy Institute.

The Strategist, ASPI's commentary and analysis website, delivers fresh ideas on Australia's defence and strategic policy choices as well as encouraging discussion and debate among interested stakeholders in the online strategy community. Visit and subscribe to an email digest at www.aspistrategist.org.au.

facebook.com/ASPI.org

@ASPI_org



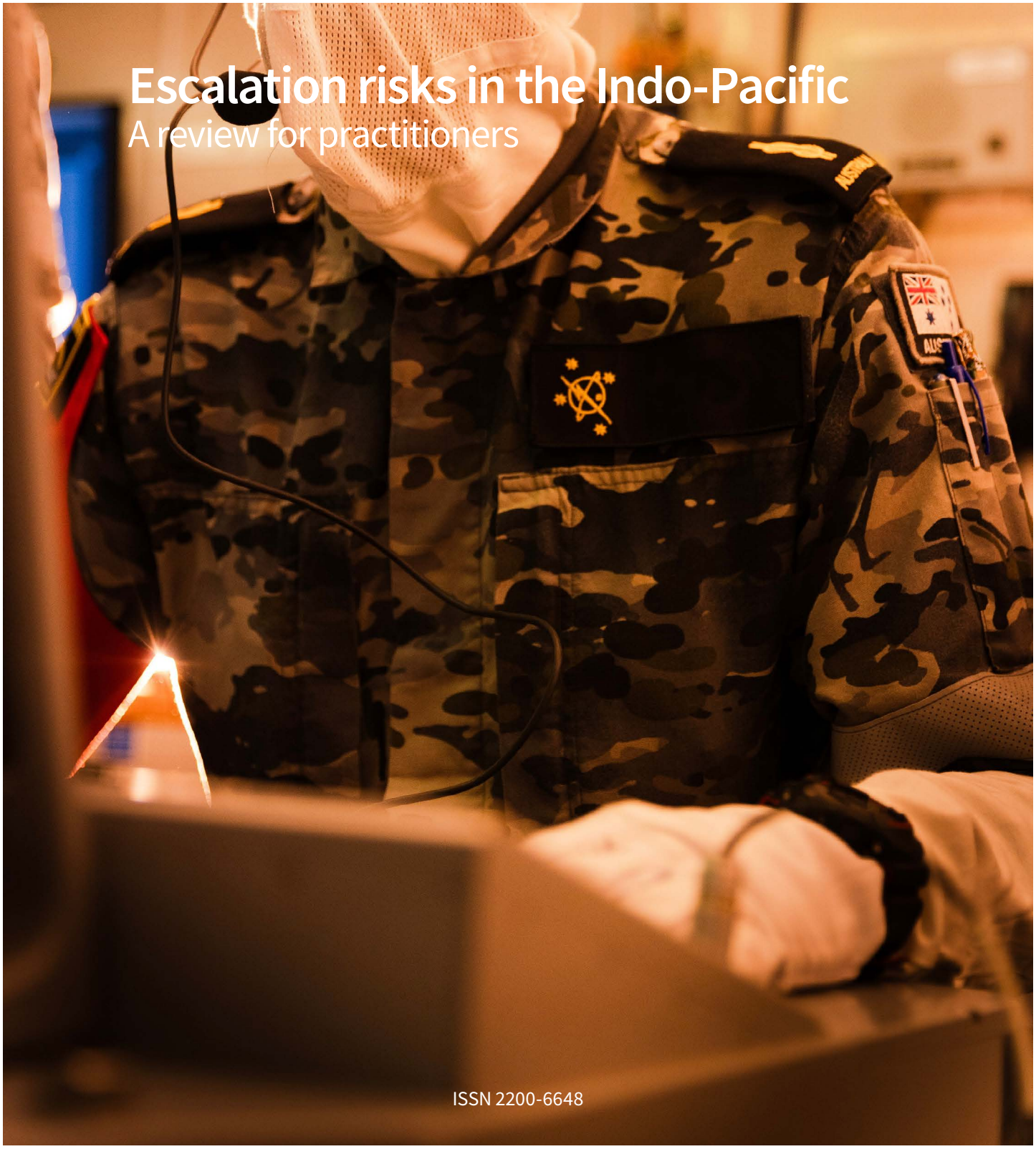
ASPI
AUSTRALIAN STRATEGIC POLICY INSTITUTE

Supported by KBR

To find out more about ASPI go to www.aspi.org.au or contact us on 02 6270 5100 and enquiries@aspi.org.au.

Escalation risks in the Indo-Pacific

A review for practitioners



ISSN 2200-6648