



# An introduction to deterrence by denial



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# Summary report

This annotated bibliography provides a comprehensive overview of key sources and literature concerning deterrence by denial, a strategic approach that aims to discourage potential adversaries from taking actions detrimental to one's interests by making such actions infeasible or unlikely to succeed. The sources presented here highlight the importance of signalling a credible capability, considering interests, shaping perceptions and building coalitions in implementing deterrence by denial.

In addition to providing an overview of the literature, this annotated bibliography features sources that engage in critical debates surrounding the efficacy of deterrence by denial, particularly in the context of the current strategic competition in the Indo-Pacific. By examining these key sources, this bibliography seeks to offer a well-rounded understanding of the concept, its practical implications and the ongoing discussions that shape our understanding of deterrence by denial.

## Key findings

- Deterrence by denial is now best defined as the ability “to deter an action by making it infeasible or unlikely to succeed, thus denying a potential aggressor confidence in attaining its objectives”.
- Deterrence by denial was first defined, together with deterrence by punishment, in 1960 as “having the capability to deny the other party any gains from the move which is to be deterred” and was linked to nuclear deterrence.
- Key experts and theorists regard denial strategies as inherently more reliable than punishment strategies for achieving deterrence. A deterrence by denial strategy should not be assessed on military balances alone, is more than levelling threats, is based on interests and relies on the nuanced shaping of perceptions.
- As noted in Australia's 2024 National Defence Strategy and emphasised by multiple experts, deterrence by denial rests on signalling a credible capability.
- Dissuasion by denial has emerged as a nuanced concept to reflect it is primarily an effort to shape the thinking of a potential aggressor, and this is evident from the discourse on signalling, perceptions, interests and confidence.
- Coalition building is identified as a key element of deterrence by denial strategies.
- Deterrence by denial is seen as having application in cyberspace and biological warfare, and particularly in the case of the former, should involve a whole of society approach.
- Deterrence by denial remains a contested concept, and there is strong debate in the United States about whether it is the most appropriate and effective strategy for the United States (US) to adopt in response to the rise of China as a potential hegemon in the Asia Pacific.

# What is meant by ‘deterrence through denial’?

Deterrence by denial was first defined, together with deterrence by punishment, in 1960 as “having the capability to deny the other party any gains from the move which is to be deterred” and was linked to nuclear deterrence. It has been subsequently defined as seeking “to deter an action by making it infeasible or unlikely to succeed, thus denying a potential aggressor confidence in attaining its objectives”.

Australia’s **2024 National Defence Strategy** announced the adoption of a Strategy of Denial. In the document, the Strategy of Denial is defined both by reference to its design, that is, “to deter a potential adversary from taking actions that would be inimical to Australia’s interests and regional stability”, and also by its aim, being “to deter conflict before it begins, prevent any potential adversary from succeeding in coercing Australia through force, support regional security and prosperity, and uphold a favourable regional strategic balance”. The Strategy of Denial also rests on “signalling a credible ability to hold potential adversary forces at risk” in order “to deter attempts to coerce Australia through force”. Deterrence is clearly a fundamental element of Australia’s Strategy of Denial, and is identified in the National Defence Strategy as the nation’s primary strategic defence objective.



HMAS *Sydney* fires Royal Australian Navy’s first Naval Strike Missile during a SINKEX off the coast of Oahu, Hawaii as a part of Exercise Rim of the Pacific (RIMPAC) 2024.

In the **National Defence Strategic Review of 2023 (DSR)**, it was stated that deterrence would be achieved through denial. ‘Deterrence through denial’ would be the basis of current Australian defence policy. It was briefly introduced as the military application of deterrence theory, based on the concept of establishing effective defence capabilities relative to the threat. Paul Dibb and Richard Brabin-Smith welcomed the concept’s introduction (even if in their view it was belated) in **‘What the defence strategic review got right—and got wrong’**, contending that as confidence in deterrence

by denial increases, the dependence on early response to warning will reduce. The authors also pos-tulated that it is easier and cheaper to go to a higher state of alert with the concept of deterrence by denial than with one based on deterrence through punishment. Richard Dunley in **'What exactly is Australia's strategy of denial meant to do?'** claims the DSR was also met by confusion, centred around "a lack of clarity in two key areas—the first is what is meant by denial, and the second is the type of scenario being envisaged". He considers the definition of strategy of denial as incredibly broad in the document. Dunley called for careful thought about what is meant by terms such as 'de-nial', and questioned whether the lexicon was suitable to facilitate a proper debate.

So, what does the term 'deterrence through denial' actually mean? The concept of deterrence by (or through) denial was originally defined by academic Glenn Snyder in 1960 in **'Deterrence and Power'**. Snyder's description of deterrence as "the power to dissuade another party from doing something which one believes to be against one's own interests" was not pioneering. However, he reasoned that deterrence does not have to depend on threat and capacity to impose punishment, that is, what he termed "deterrence by punishment". Instead, deterrence can "also be achieved by having the capability to deny the other party any gains from the move which is to be deterred". This, Snyder theorised, was "deterrence by denial". And it is accomplished in his view "by having military forces which can block the enemy's military forces from making territorial gains".

As recently as 2024, Erik Gartzke and Jon Lindsay in **'Elements of Deterrence: Strategy, Technology, and Complexity in Global Politics'** presented that deterrence is not a single, coherent strategy or objective, but a complex bundle of relationships between and among several ends and means. They noted that deterrence theory has been applied to a range of threats on the land, sea, air, space and cyber domains, with varying degrees of success. Their aim was to integrate updated versions of published work with new research into a holistic framework for understanding how deterrence works—or fails to work—in multiple domains. Through a series of theoretical and empirical studies, they explored the fundamental trade-offs that have always been implicit in practice but they consider have yet to be synthesised into a general theory of decision-making under constraint.

Mazarr, in his work on **'Understanding Deterrence'**, revisits fundamental concepts and principles about deterrence. He reiterates the distinction between deterrence by denial and deterrence by punishment. For Mazarr, "deterrence by denial strategies seek to deter an action by making it infeasible or unlikely to succeed, thus denying a potential aggressor confidence in attaining its objectives". In his analysis, it effectively and simply represents the application of an intention and effort to defend a commitment. He contends that the "capability to deny amounts to a capability to defend", but cautions that the health of a deterrence threat grounded in denial capabilities should not be equated on military balances alone. His analysis suggests that denial strategies are inherently more reliable than punishment strategies for achieving deterrence. Mazarr asserts that deterrence is about so much more than merely threatening a potential adversary, but demands the "nuanced shaping of perceptions so that an adversary sees the alternatives to aggression as more attractive than war". He draws on earlier analysis which introduced the nuanced concept of 'dissuasion by denial' and declares that the most important finding from his review is that "deterrence and dissuasion must be

conceived primarily as an effort to shape the thinking of a potential aggressor”.

Mazarr’s position that denial is more reliable than punishment is supported by Lawrence Freedman in **‘Deterrence’**, who reasons this is because, if threats have to be implemented, it offers control rather than continuing coercion. Freedman believes that denial tends towards control; controlling the “situation sufficiently in order to deny the opponent strategic options”.

In **‘Toward Theory for Dissuasion (or Deterrence) by Denial: Using Simple Cognitive Models of the Adversary to Inform Strategy’**, Paul Davis noted the deceptive simplicity of the concept of deterrence by (or through) denial. Davis, who published four years prior to Mazarr above, draws on influence theory to treat denial as a form of dissuasion. He proposes the concept of dissuasion by denial, or DND, and defines it as “detering an action by having the adversary see a credible capability to prevent him from achieving potential gains adequate to motivate the action”. In this definition we see references to what the adversary “sees,” whether he regards that as “credible,” and whether he sees the “potential” gains as good enough by some criteria”. Davis highlights that the word “potential” avoids assuming that the adversary bases judgement on expected subjective utility as in rational-actor theory. We should note the nods to Davis’ work in the 2024 National Defence Strategy, with references to signalling a credible ability.



Hobart Class Destroyers, HMA Ships *Hobart*, *Brisbane* and *Sydney*, work together at sea for the first time off the east coast of Australia.

Adam Lockyer and Michael Cohen introduced the dissuasion by denial concept to the Australian denial debate in 2017 in **‘Denial Strategy in Australian Strategic Thought’**. They also argued that while denial had been at the centre of Australian strategic thought for decades, it had frequently been used as a broad catch-all term. This was notwithstanding that there were two distinct denial

traditions in Australian strategic thought: antiaccess denial and area denial. Lockyer and Cohen argued that acknowledging the specific type of denial was critical for policy and operational considerations, and that the different denial strategies have significantly different implications for defence budgets, procurement and force structure. The authors contended that dissuasion by denial had gained growing influence in deterrence research and was of high relevance to twenty-first-century Asia Pacific security dynamics. The article finally addressed the conditions under which each denial strategy would be the most appropriate for Australia.

Ruhle in '**Deterrence: what it can (and cannot) do**' echoes many of Paul Davis' conclusions. He reinforces the pitfalls of simple definitions of concepts such as deterrence; to him it should not "lead to the conclusion that all it takes to deter is to put enough force on display". He also repeats Davis' caution on assuming both sides act "rationally", and according to a cost-benefit calculus. With reference to confused British actions in the lead-up to the Falklands War, he emphasises the importance of credibility as one of deterrence's most important ingredients. Similarly to Mazarr, he stresses that "deterrence is not just about military balances, but also about interests".

This focus on influencing the strategic calculus of actors is expanded upon by Samuel Zilincik and Tim Sweij in '**Beyond deterrence: Reconceptualizing denial strategies and rethinking their emotional effects**'. The authors state that as denial can help contribute to preventing a war's outbreak, it is important to understand the power to deny—what it encompasses, how it generates effects and which outcomes it leads to. They contend that deterrence by denial has garnered insignificant attention and this neglect represents a missed opportunity; it has also predominantly been conceived of in opposition to deterrence by punishment, rather than as a stand-alone strategic concept. Five reasons are cited for placing a renewed emphasis on deterrence by denial, including greater breadth of application, more options in the event of a failure of deterrence, and less risk of misinterpretation ("easier to signal possession of denial capabilities through exercises and demonstrations to the adversary than to convey your willingness to impose punishment after the fact"). Zilincik and Sweij aim to broaden the scope of denial's effects beyond fear, notably by identifying emotions other than fear that mediate the consequences of denial.

John Mearsheimer in his book '**Conventional Deterrence**' looks at the origins of war in several crises over the twentieth century and explores why deterrence has failed. Mearsheimer challenges the claim that conventional deterrence is largely a function of the numerical balance of forces and also contests the attribution of deterrence failures to the dominance of "offensive" weaponry. Importantly, in addition to the military consideration underlying deterrence, he also analyses the interaction between those military factors and the broader political considerations that move a nation to war.

In '**The Defender's Dilemma**', Elisabeth Braw addresses the issue of identifying and deterring grey-zone aggression. She combines dissuasion and deterrence under the label of deterrence, and then adopts the twofold partition of deterrence by denial and deterrence by punishment. Braw argues that deterrence of grey-zone aggression is possible, but it requires a radical shift in the approach by liberal democracies to national security. It requires a whole of society approach—the private sector and civil society working alongside the government—to "create a wall of resilience that denies opportunities to aggressors".

Considerable literature on deterrence by denial has debated its rightful place and potential success in US defence strategy and policy, especially in the Asia Pacific in an age of great power conflict. Jacob Heim, Zachary Burdette, and Nathan Beauchamp-Mustafaga in **'Denial Is the Worst Except for All the Others: Getting the U.S. Theory of Victory Right for a War with China'**, argue that a denial theory of victory is the best way to strike the balance between the desire to maximise the chances of US success and the imperative to manage escalation. The authors refer to a US-led coalition and urge that this coalition avoid theories of victory that rely on military cost imposition. In support, they coin the term the "Goldilocks challenge" to describe the dilemma of "finding a "sweet spot" of targets that are valuable enough to influence Beijing's decision-making but not so valuable that attacking them causes unacceptable escalation".



HMAS *Hobart* sails in company with JS *Ashigara* in preparation for the International Fleet Review 2022 off the coast of Yokosuka, Japan.

Erica Borghard, Benjamin Jensen, and Mark Montgomery also support the orientation of US foreign policy and defence strategy around the concept of deterrence by denial in **'Elevating 'deterrence by denial' in US defense strategy'**. They suggest it would deny US adversaries the ability to threaten global connectivity and it must become a key aspect of defence strategy. In their view, denial strategies "work when a country targets an adversary's military capabilities (in contrast to its population centres or economy) or shores up its own defences to such an extent that offensive operations are perceived to be inordinately costly for an attacking country".

Consequently, a US defence strategy based on deterrence by denial is best suited for contemporary strategic challenges and the evolution of the international landscape.

In **'Kill 'Em All? Denial Strategies, Defense Planning, and Deterrence Failure'**, Evan Montgomery forcefully argues for the US to have the ability to deter potential enemies by denial. In particular, Montgomery regards the ability to protect allies and partners as arguably the best

way to deter attacks against them, or to win a war quickly if deterrence fails. However, this paper does acknowledge that a strategy of denial has inherent challenges. In pursuing solutions, Montgomery maintains that the solutions should not focus on narrow operational problems and prescribe approaches such as rapid attrition. They should pursue solutions that are scalable enough to give policymakers flexibility, such as collaborating even more closely with allies and partners.

The importance of building coalitions against an adversary as a feature of deterrence by denial is a strong theme in **'The Strategy of Denial'** by Eldridge Colby. He argues that forming an antihegemonic coalition allows the negative goal of denial to be pursued, by bringing enough states together to prevail in a systemic regional war. For the US, the ability to deny "rests on the ability to muster and sustain an antihegemonic coalition strong enough to outweigh China's power." Colby again emphasises the importance of credibility—there must be confidence in American protection. And he develops the idea of differentiated credibility to posit that the US should regard some alliance and coalition commitments as more important than others. In **'The State of (Deterrence by) Denial'**, Elbridge Colby together with Walter Slocombe stress that the US should act now to strengthen its western Pacific forward posture as further neglect raises the risk of war—and defeat. While noting that fielding a credible forward defence will be difficult and costly, they emphasise that successful deterrence will need to be founded on a clear US willingness to use military force in the face of Chinese aggression, a major effort to encourage contributions from and cohesion among allies and partners, and critically the military capability to back it up. Colby and Slocombe contend that a credible forward defence is by no means beyond US capabilities or resources, especially in concert with much greater and more focused efforts by its allies and partners.

However, some commentators are raising strident concerns over the merits of deterrence by denial. In **'Six reasons the Pentagon should retire 'deterrence by denial''**, Bryan Clark and Dan Patt described the concept as flawed and underexamined. Clark and Patt concede that the idea still enjoys the loud support of defence officials, think tank studies and government strategies, but highlight that the actions of Russia and China, and US wargaming, as suggest their faith is misplaced. The authors expound on six reasons for why the concept should be retired, summarised here as: it is vague; its targeted at the wrong audience; it distorts US force design; it may not be feasible against new forms of aggression, such as grey-zone operations; it undermines US credibility; and it imposes disproportionate costs on US forces. Clark and Patt recommend that Integrated Deterrence, Campaigning, and Building Enduring Advantages should be the focus of effort in place of denial.

The application of deterrence by denial in the air and maritime domain has also been considered by US writers. In **'Defense of Denial: Why Deterring China Requires New Airpower Thinking'**, Maximilian Bremer and Kelly Grieco enter into the debate on how the US Air Force should implement the 2022 National Defense Strategy, which stressed deterrence by denial and called on the Department of Defense to "develop asymmetric approaches and optimize our posture for denial" in order "to deter aggression, especially where potential adversaries could act to rapidly seize territory." They reject the air dominance approach, arguing that it confuses deterrence by denial with the ability to completely and quickly defeat an adversary. Further, it assumes "threatening military defeat is the only way to deter an adversary, rather than a way—and not necessarily the best way—to posture the Air Force for deterrence by denial". In contrast, Bremer and Grieco offer that the strategy of air denial would focus on "limiting China's ability to gain and exploit air superiority in offensive military operations". An air denial strategy economises force by employing sufficiently large numbers of smaller, cheaper weapons in a distributed way.

Turning to the maritime domain, in **'Don't Knock Yourself Out: How America Can Turn the Tables on China by Giving Up the Fight for Command of the Seas'**, Paul van Hooft argues that the US should "give up its quest for command of the maritime commons in the Western Pacific". Instead, van Hooft proposes that the US should, together with its allies and partners, focus on denying China command of the Pacific maritime commons, noting that it is cheaper and easier to deny command of the seas than to exercise it. Van Hooft recognises that giving up command of the seas may seem unpalatable, but postulates that it need not be fatal to the US and its allies and partners' collective goal to maintain the regional balance of power. In **'The National Security Strategy's Implications for Seapower'**, Bryan McGrath highlights that the 2022 US National Security Strategy shifted from an emphasis of deterrence by punishment to one that stresses denial of enemy objectives. It introduced a sophisticated argument for a new conventional deterrence posture that has significant implications for American seapower. For McGrath, deterrence by denial demands the availability of nearby force that can be employed quickly and lethally, a primary attribute of forward-deployed American seapower.

In recent years, in the wake of the COVID pandemic and the prevalence of cyber-attacks, there has been consideration of how deterrence by denial may be applied in cyberspace and against biological weapons. Erica Borghard and Shawn Lonergan in **'Deterrence by denial in cyberspace'**, challenge



Collins class submarines, HMA Ships *Collins*, *Farncomb*, *Dechaineux* and *Sheean*.

the contention that cyber deterrence is not possible. They argue that cyber deterrence frameworks that draw from the logic of deterrence by punishment are mismatched to deterrence challenges in cyberspace, and instead advocate for a deterrence by denial approach centred around counter-cyber operations. In **'A Deterrence by Denial Strategy for Addressing Biological Weapons'**, Christine Parthemore and Andy Weber also postulate that defending against biological attacks with a strategy of deterrence by denial is now more possible than ever before. For these authors, such a strategy

would involve “developing robust capabilities to prevent biological weapons from causing mass damage, essentially deterring their use by preventing them from having the effect that attackers intend”. A strategy of deterrence by denial would take defence and preparedness to the point that they would dissuade adversaries from developing and using biological weapons in the first place; biological attacks would be “so ineffective as to be futile”.



HMAS *Ballarat*'s embarked MH-60R Seahawk helicopter conducts a forward passenger transfer with HMAS *Rankin* inside Cockburn Sound, Western Australia.

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