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Center for Strategic and Budgetary Assessments

GATEWAY TO THE INDO-PACIFIC

AUSTRALIAN DEFENSE STRATEGY AND THE
FUTURE OF THE AUSTRALIA-U.S. ALLIANCE

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CONTENTS

Introduction and Summary	1
Chapter 1: The Dawn of a New Era in Australia-U.S. Defense Ties.....	3
Chapter 2: Gauging Australia’s Future Military Roles.....	12
Chapter 3: Aligning Capabilities with Operational Requirements	29
Conclusion: From the Tyranny of Distance to the Challenge of Proximity	41

INTRODUCTION AND SUMMARY

A vast, continent-sized island located at the edge of the Asia-Pacific rim, Australia has been shaped and defined by a set of seeming contradictions. Western in its identity, Asian in its geography, Australia has found itself compelled throughout history to adopt a complex, multi-faceted approach to its security. Marked by a tradition of great power dependency, Canberra has also frequently demonstrated a strong desire for greater self-reliance.¹ This abiding duality has been expressed in both operational and strategic terms via a constant oscillation between the quest for greater forward presence and the perceived exigencies of continental defense. This struggle for strategic self-definition was exacerbated by the fact that for much of the Cold War, the United States' principal security concerns were extra-regional to Australia. Although American and Australian soldiers fought side by side in both Korea and Vietnam, America's main focus was the European Central Front, rather than the tropical oceanic expanses of the southern hemisphere. In the wake of 9/11, both nations spent over a decade conducting counter-insurgency campaigns in the Middle East, with Australian soldiers operating in both Afghanistan and Iraq.

As the world's center of gravity shifts from west to east and the locus of great power interactions gradually enters Australia's maritime backyard, Australia has moved from "down under" to "top center" in terms of geopolitical import. For the first time since World War II, Australian and American areas of strategic priority overlap. The strength of this rekindled convergence suggests that the U.S.-Australia relationship may well prove to be the most special relationship of the 21st century.²

This report offers an American perspective on the U.S.-Australia military alliance, as it stands poised at the cusp of a new era. Located at the confluence of the Indian and Pacific Oceans, Australia appears ideally positioned to act as gatekeeper to the Indo-Pacific commons, keeping watch over increasingly contested waters and fulfilling a central role in the preservation of crisis stability in Asia.

This report proceeds in three parts. First, it examines the state of the U.S.-Australia military alliance, detailing the geopolitical shifts currently underway in Australia's immediate neighborhood and outlining the extent to which these developments signal the advent of a new era. The seismic nature of these changes has engendered a vigorous strategic debate within Australia over the future of its defense ties with the United States. The report provides a succinct overview of ongoing debates and

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¹ See Michael Evans, "The Tyranny of Dissonance: Australia's Strategic Culture and Way of War, 1901-2005," (Canberra: Australian Land Warfare Studies Centre, 2005).

² See Iskander Rehman, "From Down Under to Top Center: Australia, the United States, and this Century's Special Relationship," (Washington, DC: Transatlantic Academy, 2011).

examines three different schools of thought in Australia: the *Alliance Minimalist School*, the *Alliance Maximalist School*, and the *Incrementalist School*. Many of the traditional assumptions at the heart of Australian strategic culture are in the process of being overturned, and the U.S.-Australia alliance is increasingly perceived as a bedrock for sustained regional stability.

Building on these observations, the second section of the report details four manners in which Australia could make greater contributions to regional security and deterrence. These operational roles are categorized as follows:

Supportive Sanctuary: Capitalizing on its advantageous geographical position, strategic depth and highly developed infrastructure, Australia can play an indispensable role providing access, training opportunities, logistics and repair facilities to support Allied military forces.

Indo-Pacific Watchtower: Australia's unique geography and decades of close intelligence, surveillance, and reconnaissance (ISR) cooperation with the United States provide the foundation for expanding its role in reconnoitering the Indo-Pacific, space, and cyber domains.

Green Water Warden: Australia's proximity to key Southeast Asian waterways and considerable experience in the conduct of challenging amphibious and littoral operations place it in an ideal position to work alongside Indonesia in safeguarding the Sunda and Lombok Straits.

Peripheral Launchpad: Australia's extended coastlines and position make it an ideal location from which to conduct peripheral campaigns in the Indian Ocean, such as maritime interception operations, in the event of conflict breaking out in the western Pacific.

After examining each role in depth, the report discusses how Australia's new leadership can best align the nation's future defense capabilities with both its operational environment and its emerging military strategy. It explores Australia's current airpower and submarine debates and argues in favor of longer-range air capabilities, both manned and unmanned, as well as for Australia ideally to acquire nuclear-powered submarines, unmanned underwater vehicles, and submarine tenders. The third section concludes by stating that absent a greater degree of funding and budgetary consistency on the part of the Australian government, the U.S.-Australia alliance may fail to reach its considerable potential.

CHAPTER 1: THE DAWN OF A NEW ERA IN AUSTRALIA-U.S. DEFENSE TIES

The Transformation of Australia's Strategic Environment

Asia's economic and military rise has profoundly transformed Australia's strategic environment, reshaping not only the nation's economy, but also its threat perceptions. To a large extent, the main driver behind these transformations is China. Indeed, China has emerged, almost simultaneously, as both Australia's greatest trading partner and as its greatest potential military threat. Fueled by a voracious appetite for natural resources, China consumes vast quantities of Australian iron ore and natural gas and has emerged as the island nation's primary trading partner.³ Western Australia, which was long seen as something of a backwater, is booming economically, due to the mushrooming of offshore oil and gas developments off the western and northwestern seaboard. While the state accounts for less than 11 percent of Australia's total population, it provides 46 percent of all its exports and holds the majority of the nation's natural gas reserves.⁴ In the second quarter of 2013, China bought over 35% of all Australian exports, more than double the level of only five years ago. Australia's exports are also increasingly diversified, with a recent surge in high-value pharmaceutical and medical products. In 2011, China overtook Japan as the number one destination for Australian rural exports. While this has produced rich dividends for the Australian economy, it has also raised concerns over the nation's growing reliance on Chinese growth. As some commentators have noted, "Australia has become more reliant on China as buyer of its exports than any other trading partner in the past 63 years, surpassing the dependence on Britain after World War II."⁵ Some Australian economists have warned that Australia's degree of exposure has rendered it more vulnerable to short-term shocks in the Chinese economy, while others have warned that China's demand for minerals is unsustainable.⁶

Asia's economic and military rise has profoundly transformed Australia's strategic environment, reshaping not only the nation's economy, but also its threat perceptions.

³ As China enters an era of slower growth, however, Australian exports of natural resources to China have begun to register a relative decline. See Reissa Su, "China's Risky Growth Outlook and Trade Surplus Causes Australian Dollar Decline," *International Business Times*, July 10, 2013, available at <http://au.ibtimes.com/articles/488450/20130710/china-trade-exports-australia-australian-dollar-europe.htm#.UgVHPu25f8s>.

⁴ Australian Energy Regulator, *State of the Energy Market Report 2012*, (Melbourne: 2012), available at <http://www.aer.gov.au/sites/default/files/Chapter%203%20Natural%20gas.pdf>.

⁵ Angus Grigg and Lisa Murray, "Australia-China Trade no Longer Just a Resources Story", *Financial Review*, August 21, 2013, available at http://www.afr.com/p/australia2-0/australia_china_trade_no_longer_BR858fGu3LCDM0n3NzUDhJ

⁶ Marianna Papakadis, "Chinese production fires up iron ore prices," *Financial News*, August 13, 2013, available at http://www.afr.com/p/markets/market_wrap/chinese_production_fires_up_iron_Jjo1ecdSJ85st27g0d8npL

Australian discomfiture is not solely confined to the economic sphere. Indeed, concerns have steadily grown in Canberra over Beijing's rapid military modernization and increasingly assertive attitude with regard to ongoing territorial disputes. Since 2009 and the highly publicized USNS *Impeccable* incident, China has engaged in acts of maritime brinkmanship with nations ranging from the United States and Vietnam, to the Philippines and Japan.⁷ As one Australian commentator recently noted, "China's willingness to ignore the attempts at collective bargaining by ASEAN and to apply undue pressure bilaterally to the individual countries with which it has territorial disputes in the South China Sea and the East China Seas has shaken confidence at China's claims to benign intent."⁸ The growth of China's influence on Australia's economy and security perceptions has resulted in a profound reappraisal of the nation's strategic orientation.

While China's hunger for Australian commodities has driven the breakneck pace of development in the country's sparsely populated west, in parallel Australia has also significantly deepened its economic and diplomatic ties with India, another rising Asian power. India is viewed not only as an important trading partner, but also as a potentially useful counterweight to Chinese expansionism. This attitude is shared in large part by most countries in the wider region, which increasingly perceive India as a benign external balancer.⁹ Australia's increasingly westward orientation has led it to extend its strategic vision and adopt a more holistic interpretation of Asia's emerging security architecture. Since the end of World War II, Australian policy and decision makers have been beholden to a heavily Pacific-centric worldview. This was due to the fact that most of the nation's economic and population centers were clustered along the eastern coastline, while Australia's greatest ally, the United States, lies on the other side of the Pacific Ocean, which was sometimes colloquially referred to as the "ANZUS lake." As a result, the Indian Ocean, which laps against Australia's vast and sparsely populated western seaboard, was Australia's "forgotten ocean."¹⁰ Over the past decade, this perception has radically shifted, and the Indian Ocean is viewed not only as a major hub of world trade, but also as an area of strategic priority. This is strongly reflected in Australia's 2013 Defense White Paper, which draws attention to the emergence of an "Indo-Pacific Strategic Arc that connects the Indian Ocean and Pacific Oceans through Southeast Asia."¹¹ Although the White Paper acknowledges the fact that the Indo-Pacific is more of a "series of sub-regions and arrangements rather than a unitary whole,"¹² this is the first time, notes an Australian observer, that a "country officially defines its region of strategic interest as the Indo-Pacific."¹³

For Australia, Southeast Asia forms the connective tissue of this emerging security construct. With a combined GDP of 2.1 trillion U.S. dollars, and the steady rise of an affluent middle class, the ASEAN bloc is increasingly viewed as a prime destination for Australian exports and investment. In 2012, Australia's two-way trade in goods and services with ASEAN amounted to approximately 87.48

⁷ For a study of the various drivers behind China's acts of maritime brinkmanship see Oriana Skylar Mastro, "Signaling and Military Provocation in Chinese National Security Strategy: A Closer Look at the Impeccable Incident", *Journal of Strategic Studies*, Vol.34, No.2, 2011, pp.219-244.

⁸ John Blaxland, "China Choice: Thai Parallels for Australia", *The Strategist*, October 15, 2012, available at <http://www.aspistrategist.org.au/china-choice-thai-parallels-for-australia/>

⁹ See, for example, Iskander Rehman, "Keeping the Dragon at Bay: India's Counter-Containment of China in Asia", *Asian Security*, Vol. 5, No.2, 2009, pp.114-143 and David Scott, "India's Role in the South China Sea: Geopolitics and Geoeconomics in Play", *India Review*, Vol.12, No.2, 2013, pp.51-69.

¹⁰ Sam Bateman and Anthony Bergin, "Our Western Front: Australia and the Indian Ocean," (Canberra: Australian Strategic Policy Institute, 2010) p.33, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=248.

¹¹ Australian Department of Defence, *Defence White Paper 2013* (Canberra, 2013), p.7.

¹² *Ibid.*

¹³ Rory Medcalf, "Breaking Down Australia's Defense White paper 2013," *The Diplomat*, May 7, 2013, available at <http://thediplomat.com/2013/05/07/breaking-down-australias-defense-white-paper-2013/>

billion U.S. dollars. In 2009, Australia signed a Free Trade Agreement (FTA) with ASEAN and New Zealand, and in September 2013 Foreign Minister Julie Bishop announced the appointment of Australia's first resident ambassador to ASEAN.

Indonesia is central to Australian thinking about Southeast Asia and demands special attention. In the course of private conversations, Australian defense officials readily compare the importance of Indonesia's strategic location with regard to Australia, with that of the Caribbean to the United States in the 19th century or the Low Countries to Great Britain throughout much of its history.¹⁴ A rising economic power, Indonesia's GDP recently surpassed that of Australia. Extending 3,000 miles from east to west, Indonesia forms the most populous Muslim country in the world, with over 242 million inhabitants. Australia views the further improvement of its military, economic, and diplomatic ties with Indonesia as a matter of utmost priority and has increasingly high stakes in underwriting its neighbor's political stability and economic success. The future of Australia-Indonesia ties has an enormous bearing not only for the residents of both nations, but also for the future of regional security writ large. One Australian scholar, while commenting on the uncertainty tied to the future of both countries' relations, notes that if Indonesia were to become an ally to Australia, "its strategic weight will allow it (Indonesia) to become a major maritime power with the capacity to protect its own maritime approaches from hostile intrusions, and in doing so protect Australia's own as well."¹⁵ Jakarta has already begun to express such ambitions, signing a contract with South Korea's Daewoo Shipbuilding and Marine Engineering in December 2011 to procure three Type 209/1200 diesel-electric attack submarines by 2020.

Indonesia's focus on maritime power has been echoed throughout Asia, with nations increasingly investing in high-end naval assets. The proliferation of submarines, in particular, has raised concerns in Canberra, as has the increasingly vehement nature of ongoing maritime territorial disputes in the East and South China Seas.¹⁶ From a nation situated but a decade ago at the fringes of global geopolitics, Australia has been propelled into the very heart of this century's most crowded and dynamic geopolitical arena.

A Period of Renewed Strategic Convergence

Australia has grappled with a defining paradox since its early days: its cultural proximity to the West and its geographical distance from it. This sense of isolation has forged the narrative of Australian identity since the times of the early Federation, when Sir Henry Parkes famously referred to the "crimson thread of kinship" that tenuously bound the young Australian colonies to each other, as well as to Great Britain.¹⁷ Invoking this duality, political scientist Samuel Huntington posited that Australia

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¹⁴ Author's conversation with Australian defense official, August 2013.

¹⁵ Hugh White, "What Indonesia's Rise Means for Australia: Northern Exposure," *The Monthly* (June 2013 Issue), available at <http://www.themonthly.com.au/issue/2013/june/1370181600/hugh-white/what-indonesia-s-rise-means-australia>.

¹⁶ See Sam Bateman, "Perils of the Deep: The Dangers of Submarine Proliferation in East Asia," *Asian Security*, Vol. 7, no. 1, 2011, pp. 61-84.

¹⁷ In a famous speech, Australian statesman Sir Henry Parke declared in 1889 that, "The crimson thread of kinship runs through us all. Even the native-born Australians are Britons, as much as the men born within the cities of London and Glasgow. We know the value of their British origin." Sally Warhaft, *Well May We Say: The Speeches that Made Australia*, (Melbourne: Black Inc., 2004), p. 6. See also Bernard Ringrose Wise, *The Making of the Australian Commonwealth 1899-1900, A Stage in the Growth of an Empire*, (London: Longmans, Green and Co., 1913), p. 51.

was a “torn nation,” teetering on a cultural fault line, searching for its place in the world.¹⁸ Others have attempted to define the young nation by the concept of “liminality,” which depicts it as a country marked by a liminal location “suspended between two different worlds in which there is access to both, but in which permanence in either appears elusive.”¹⁹ In reality, far from being a source of existential malaise, Australia’s liminality, or location at the intersection of two worlds, has become its greatest virtue at a time when the world’s attention is shifting to Asia.

The United States’ decision to rebalance towards Asia has had a sizable impact on the Australia-U.S. alliance.

For the past few years, Washington has accentuated its efforts to “pivot” or “rebalance” towards the world’s new center of economic and geopolitical gravity, viewing American power as being “underweighted” in Asia, while “overweighted” in regions such as Europe and the Middle East.²⁰ In 2011, Kurt Campbell, then Assistant Secretary of State for East Asian and Pacific Affairs, made the observation that “We (the United States) have been on a little bit of a Middle East detour over the course of the last ten years...And our future will be dominated utterly and fundamentally by developments in Asia and the Pacific region.”²¹ Official documents have enshrined this reorientation in writing, announcing that 60% of American military air and naval assets will be shifted to the Asian theater by 2020 and explaining that “while the U.S. military will continue to contribute to security globally, [the United States] will of necessity rebalance toward the Asia-Pacific region.”²²

The United States’ decision to rebalance towards Asia has had a sizable impact on the Australia-U.S. alliance. Whereas in the decade following 9/11 Australia’s perception of ANZUS was largely dictated by the perceived need to conduct out of area operations in remote landlocked locales such as Afghanistan and Iraq, both countries now view the Indo-Pacific as their prime future theater for joint operations. Australia’s strategic geography, well-trained armed forces, and highly regarded intelligence complex renders it an increasingly invaluable partner to the United States. Much as Washington’s close alliance with London provided the United States with a strategic vantage point over Europe throughout the troubled 20th century, America’s strong ties with Australia provide it with the means to preserve U.S. influence and military reach across the Indo-Pacific. Far from the “torn nation” depicted by Huntington, Australia is increasingly viewed by policy-makers in Washington as a vital “bridging power” in Asia, whose deepening ties with rising democratic powers, such as India and Indonesia, perform a vital role in ensuring the future of regional stability.²³ President Barack Obama has characterized the U.S.-Australia alliance as “indispensable,” and in 2011 the Australian government took the symbolically significant decision to host up to 2,500 U.S. Marines in Darwin.²⁴

¹⁸ Samuel Huntington, *The Clash of Civilizations and the Remaking of World Order*, (New York: Simon and Schuster, 1996), p. 158.

¹⁹ Michael Evans, “The Tyranny of Dissonance: Australia’s Strategic Culture and Way of War, 1901-2005,” (Canberra: Australian Land Warfare Studies Centre, 2005), p. 29.

²⁰ Former National Security Advisor Tom Donilon, quoted by Ryan Lizza in “The Consequentialist: How the Arab Spring Remade Obama’s Foreign Policy,” *The New Yorker*, May 2, 2011.

²¹ Ibid.

²² US Department of Defense, “Defense Strategic Guidance: Sustaining US Global Leadership: Priorities for 21st Century Defense” (Washington, DC, 2012), p. 2, available at http://www.defense.gov/news/defense_strategic_guidance.pdf

²³ See David Wroe, “Hillary Clinton encourages Australia-India relationship,” *The Sydney Morning Herald*, November 13, 2012, available at <http://www.smh.com.au/federal-politics/political-news/hillary-clinton-encourages-australia-india-relationship-20121113-29aw9.html>.

²⁴ Matthew Franklin, “Our ‘indispensable’ alliance: Barack Obama,” *The Australian*, November 17, 2011, available at <http://www.theaustralian.com.au/national-affairs/our-indispensable-alliance-barack-obama/story-fn59nix-1226197309213>.

A Middle Power Struggles to Find a Middle Way: Australia's Ongoing Strategic Debate

A self-professed “middle power,” Australia has historically fretted over succumbing to what political scientist Glenn Snyder once referred to as the “security dilemma in alliance politics.”²⁵ Writing during the Cold War, Snyder argued that NATO’s European powers found themselves ensnared in a perpetual dilemma, striving to minimize the risks of entrapment, while constantly fearing the consequences of a precipitous U.S. abandonment.

The first time the rise of an Asian power triggered such concerns in Australia was in the 1920s. Having borne witness to the steady accretion of Japanese military capabilities with mounting unease, Australian politicians’ concerns grew exponentially with the termination of the Anglo-Japanese naval treaty in 1921. Both Australia and New Zealand had viewed the treaty as guaranteeing a welcome degree of stability in the region.²⁶ The emergence of a potentially hostile Pacific power with an increasingly powerful navy led to a realization in Australia that it could no longer rely on its geographic isolation as its main means of defense. Instead, it would become ever more beholden to the tenuous security guarantee provided by Great Britain’s promise to send naval forces to Singapore in the event of conflict.

As Japan steadily escalated its acts of regional aggression after invading Manchuria in 1931, Australia hesitated to openly condemn Japanese actions and strove to avoid any form of public confrontation. This restraint could be explained by two factors. First, Australia deemed itself increasingly vulnerable to the threat of invasion. Decision-makers in Canberra doubted British ships could arrive from Singapore in time to repel a Japanese invasion and did not believe that the United States would provide meaningful assistance in such an event.²⁷ Secondly, Australia’s trade relationship with Japan had flourished and remained very much in Canberra’s favor.

It is hard not to draw certain parallels with the situation today. Australia’s strategic community is once again alarmed over the rise in naval capabilities of a great Asian power, and a coterie of Australian strategic pundits have openly questioned the strength and durability of the U.S. security guarantee. China’s continued appetite for Australian imports has also proved largely beneficial to the Australian economy, much as Japan’s development provided Australia with a favorable trade balance in the 1930s. Growing economic interdependence and rising security concerns make for uncomfortable bedfellows, and the resulting state of uncertainty has spawned a rich internal debate over Australia’s future. This debate is centered on the future of the U.S.-Australia alliance, and on its ramifications for Australian and regional stability. Australia’s vibrant strategic community embodies a wide diversity of views, yet three general tendencies, or schools of thought, can be identified:

Alliance Minimalists: Alliance minimalists believe that Australia is at great risk of being entrapped in the midst of an increasingly tense U.S.-China rivalry and have severe doubts over the ability of the

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²⁵ For more on the history of the “middle power” concept, see Carl Ungerer, “The ‘Middle Power’ Concept in Australian Foreign Policy,” *Australian Journal of Politics and History*, Vol. 53, No. 4, 2007, pp.538-551. For the security dilemma in alliance politics see Glenn H. Snyder, “The Security Dilemma in Alliance Politics,” *World Politics*, Vol.36, No.4, 1984, pp.461-495.

²⁶ Peter Dennis et al., *The Oxford Companion to Australian Military History* (Melbourne: Oxford University Press, 1995), p.322. See also Ian H. Nish, *Alliance in Decline: A Study in Anglo-Japanese Relations 1908-23* (London: The Athlone Press, 1972), p. 334.

²⁷ *Ibid*, p.323. The Australian Army, in particular, repeatedly made this argument in order to provide a bureaucratic rationale for an expansion of the nation’s ground forces.

United States to preserve its favorable position as a long-term credible security provider in Asia. Their vision of the future is underpinned by a firm conviction in the inexorable character of China's rise, and in the inescapability of American decline. As a result, they argue, the U.S. should learn to accommodate Chinese ambitions, and Australia should seek to develop a more autonomous brand of security policy. Hugh White, a leading proponent of this school of thought, has posited that the United States will inevitably find itself compelled to share power with China in Asia and should therefore accept that large swathes of China's maritime environs will eventually fall under Beijing's sphere of influence.²⁸ Echoing the injunctions of the classic naval theorist Sir Julian Corbett, Hugh White paints a pessimistic vision of Asia's future seascape, which he predicts will become a "no-man's ocean," where no power will be able to truly exert sea control.²⁹ As a result, Australia should focus first and foremost on remaining at the periphery of Sino-U.S. competition, eschewing any commitments that could lead to entrapment while implementing a vigorous strategy of sea denial. White's declinist persuasion is shared to a certain extent by figures such as Peter Leahy, former head of the Australian Army, who has expressed strong reservations over the future of American primacy in the region, and has questioned the necessity of deepening military ties with the United States, for fear of unnecessarily antagonizing China.³⁰ Various business groups with vested interests in China, particularly in the mining sector, have also exhibited a strong reticence to draw closer to the United States.³¹

Alliance Maximalists: On the opposite side of the spectrum are the alliance maximalists, who believe that in the face of mounting Chinese assertiveness the strengthening of Australian security rests on a deeper enmeshment with the United States. By more proactively signaling Australia's strategic solidarity with America and undertaking measures to strengthen its own defense contributions to the U.S.-Australia alliance, Canberra can best encourage the United States to maintain its regional security commitments and enhance the durability and credibility of the alliance as a deterrent. Alliance maximalists argue that this can only occur if Australia acquires the capabilities to make meaningful contributions in the event of a regional crisis or conflict. Ross Babbage of the Kokoda Foundation, for example, has argued that Australia should acquire the military wherewithal to "rip an arm off any major Asian power that seeks to attack Australia," and has posited the need for the Australian Defence Forces (ADF) to not only defend Australia's shores but also take the fight to the enemy by actively playing a role alongside U.S. forces in the course of a protracted campaign.³² Paul

²⁸ Hugh White, *The China Choice: Why America Should Share Power*, (Collingwood: Black Inc., 2012).

²⁹ Corbett wrote that "The most common situation in naval war is that neither side has the command of the sea; the normal position is not a commanded sea, but an uncommanded sea." Julian S. Corbett, *Principles of Maritime Strategy* (Mineola, NY: Dover Publications, 2004), p.87. First published by Longmans, Green and Co., 1911. For Hugh White's dire predictions, see his presentation "*No-one's ocean: the pointlessness of AirSea Battle in Asia*," at the International Institute for Strategic Studies, London, October 2012, available at http://www.youtube.com/watch?v=mumC_AhZOSU.

³⁰ See his comments in Deborah Snow and Hamish McDonald, "Defence Ready to Muscle Up," *The Sydney Morning Herald*, July 7, 2012, available at <http://www.smh.com.au/federal-politics/political-news/defence-ready-to-muscle-up-20120706-21mdj.html>.

³¹ John Lee, "A Tilt Toward China? Australia Reconsiders its American Ties," *World Affairs Journal*, November/December 2012, available at <http://www.worldaffairsjournal.org/article/tilt-toward-china-australia-reconsiders-its-american-ties>

³² Graeme Dobell, "Rip off a Chinese Arm," *The Lowy Interpreter*, February 7, 2011, available at <http://www.loyyinterpreter.org/post/2011/02/07/Rip-off-a-Chinese-arm.aspx>, Ross Babbage, "Australia's Strategic Edge in 2030," (Kokoda Foundation, 2011), available at <http://www.kokodafoundation.org/resources/documents/kp15strategicedge.pdf>, Ross Babbage, "Strategic Competition in the Western Pacific: An Australian Perspective," in Thomas G. Mahnken, Ed., *Competitive Strategies for the 21st Century: Theory, History and Practice* (Stanford, CA: Stanford University Press, 2012), pp.236-257.

Dibb has also argued that Australia should tighten its relationship with the United States in order to keep it engaged in the region to counter-balance China.³³ Alliance maximalists tend to believe, in particular, that the ADF should adopt a policy of “deterrence by punishment,” rather than simply a policy of “deterrence by denial,” in part as a hedge against uncertainty. As Babbage has written: “the assumption that, in the event of a major security crisis in the Pacific, Australia could rely on speedy and tailored military resupply from the United States is almost certainly invalid.”³⁴

The Incrementalists: Somewhere in between can be found the incrementalists, who retain a strong belief in the value of the U.S.-Australia alliance but harbor residual concerns over U.S. policies or strategies which could, in their mind, prove destabilizing or result in Australian entrapment. Benjamin Schreer of the Australian Strategic Policy Institute, for instance, has argued in a recent report that while Australia should seek to gain additional knowledge on the operational details of the Pentagon’s freshly minted AirSea Battle Concept, it should avoid publicly signing up in any way or form to the concept, so as to not provoke Chinese ire.³⁵

These major conceptual divergences over the role of Australia within the alliance, far from remaining simply academic, have translated into policy. For example, while the alliance minimalists appeared to have had little influence on the formation of strategy, the previous Australian Government frequently seemed to oscillate, somewhat undecidedly, in-between alliance maximization and incrementalism. Its 2013 Defence White Paper stated “The Government does not believe that Australia must choose between its longstanding Alliance with the United States and its expanding relationship with China; nor do the United States and China believe that we must make such a choice.”³⁶ Former Australian Prime Minister, Kevin Rudd articulated a similar vision of Asia’s future in a recent article for the journal *Foreign Affairs*, in which he reaffirmed the importance of signaling strength and resolve in the face of Chinese assertiveness, while emphasizing the need for Beijing and Washington to enhance their military-to-military ties and create new frameworks for cooperation.³⁷ The advent of the new Liberal National Government under Prime Minister Tony Abbott would suggest a greater emphasis on alliance maximization.³⁸ There is an urgent need, however, for Australia’s new leadership to look beyond the confines of traditional perceptions of the alliance, all of which present certain inherent limitations.

For example, the alliance minimalists’ prognosis of an Asian continent divided in-between clearly delineated Chinese and American spheres of influence appears premature. One of the flaws in the alliance minimalists’ arguments is their implicit assumption that current trend lines will persist, and their belief that China’s continued rise is a foregone conclusion. Indeed, the Chinese leadership is presently confronted with a plethora of future challenges, ranging from a rapidly aging population to

³³ Paul Dibb, “US build-up no threat to peace,” *The Australian*, November 15, 2011, available at <http://www.theaustralian.com.au/national-affairs/opinion/us-build-up-no-threat-to-peace/story-e6frgd0x-1226194972352>.

³⁴ Ross Babbage, “Strategic Competition in the Western Pacific: An Australian Perspective,” in Thomas G. Mahnken, Ed., *Competitive Strategies for the 21st Century: Theory, History and Practice*, p. 237.

³⁵ Benjamin Schreer, “Planning the Unthinkable War: ‘AirSea Battle’ and its Implications for Australia” (Canberra: Australian Strategic Policy Institute, 2013), available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=356&pubtype=5

³⁶ Australian Department of Defence, *Defence White Paper 2013* (Canberra, 2013), p.11.

³⁷ Kevin Rudd, “Beyond the Pivot: A New Road Map for U.S.-Chinese Relations,” *Foreign Affairs*, March/April 2013, available at <http://www.foreignaffairs.com/articles/138843/kevin-rudd/beyond-the-pivot>

³⁸ “Australia’s Government Seeks New Policy Balance”, IISS Strategic Comments, September 26 2013, available at <http://www.iiss.org/en/publications/strategic%20comments/sections/2013-a8b5/australia--39-s-government-seeks-new-policy-balance-b513>

severe resource shortages, socio-economic disparities, and growing internal unrest.³⁹ The continued survival of the current regime, and the overall resiliency of the Chinese nation state in its current form remain subject to uncertainty.⁴⁰ Conversely, predictions of U.S. decline may be overstated. Already, certain indicators point to the beginnings of an economic recovery, and the ongoing unconventional energy revolution may hasten American recuperation. Finally, the arguments deployed by alliance minimalists attach little importance to the agency of middle powers in the region, such as Vietnam or Indonesia, which are unlikely to quietly acquiesce to the establishment of a maritime middle kingdom in Asia⁴¹.

Meanwhile, the proactive approach adopted by the alliance maximalists is to be welcomed in many regards, but may run the risk of encouraging investments in areas where the ADF can only make a marginal difference to combat outcomes. This could lead to a dispersal of limited resources and efforts, which could be better employed if concentrated more narrowly on specific types of operations that might be required closer to Australia's shores, and which Washington might see as the most valuable military contributions Australia could make.

Finally, a risk associated with a more incremental approach is that of a lack of strategic clarity. As past studies of military effectiveness have clearly shown, the absence of clear strategic direction in times of peace can have a highly deleterious impact on future force structure and military performance in the event of conflict⁴². An excessively incremental approach could result in the worst of all worlds, where Australia straddles the fence past a point where it should have already chosen a more minimalist or maximalist vector, and therefore is left ill prepared for either alternative. The rapidity of the strategic changes currently underway within Australia's neighborhood strongly suggest the need for a more vigorous and intellectually creative defense strategy, which takes into account the renewed importance of the U.S.-Australia military alliance for regional stability.

Indeed, despite certain similarities with some of the darker chapters in Australia's past, there is little likelihood that Australia will ever have to relive the trauma associated with the fall of Singapore, in 1942.⁴³ Unlike during the interwar years, Australia's current great power ally is not compelled to concentrate the bulk of its military resources thousands of miles away from Australia's shores. Rather, Washington's prime area of strategic concern is located on Australia's very doorstep. This "strategic overlap" is likely to become a permanent feature of the ANZUS alliance, which means that the age-old debate between advocates of greater self-reliance and those in favor of a stronger U.S.-

Unlike during the interwar years, Australia's current great power ally is not compelled to concentrate the bulk of its military resources thousands of miles away from Australia's shores.

³⁹ See Minxin Pei, "Superpower Denied? Why China's Rise May Have Already Peaked", *The Diplomat*, August 09, 2012, available at <http://thediplomat.com/2012/08/09/superpower-denied-why-chinas-rise-may-have-already-peaked/2/>

⁴⁰ The recent slow-down of the Chinese economy, and the rise of discontent amongst the Chinese middle class has heightened concerns over regime survival within the Chinese Communist Party itself. See Jamil Anderlini, "How Long can the Communist Party Survive in China?" *Financial Times*, September 20 2013, available at <http://www.ft.com/intl/cms/s/2/533a6374-1fdc-11e3-8861-00144feab7de.html#slide0>

⁴¹ Hugh White, for instance, has argued that Indochina will inevitably fall under China's sway. This proposition appears highly unlikely, given the strength of Vietnam's nationalist sentiment and the country's long history of defiance vis-a-vis China. For a detailed study of the structure and drivers behind both countries' enduring rivalry, see Brantly Womack, "Asymmetric Rivals: China and Vietnam", in Sumit Ganguly and William R. Thompson, Ed., *Asian Rivalries: Conflict, Escalation, and Limitations on Two-Level Games* (Stanford, CA: Stanford University Press, 2011), pp.176-195.

⁴² See Emily O. Goldman, "New Threats, New Identities and New Ways of War: The Sources of Change in National Security Doctrine", *Journal of Strategic Studies*, Vol.24, No.2, 2001.

⁴³ Historians have described the fall of Singapore as a pivotal moment in Australian history, which led to a profound sentiment of vulnerability and isolation. See Lindsay Murdoch, "The Day the Empire Died in Shame." *The Sydney Morning Herald*, February 15, 2012, available at <http://www.smh.com.au/national/the-day-the-empire-died-in-shame-20120214-1t462.html>

Australia alliance has devolved into something of a false dichotomy. Any protracted future conflict will most likely unfold within Australia's extended maritime neighborhood, and therefore the ADF's refocusing on regional maritime contingencies rather than on far-flung land campaigns is in both partners' immediate interests. In this regard, there appears to be a strategic consensus in Australia, both on the soundness of Australia's renewed quest to emerge as more of a maritime power, and on the urgent need for additional defense spending in order to meet the nation's growing security requirements.⁴⁴

The question, going forward, is how can both partners best leverage the strategic dividends flowing from a revitalized U.S.-Australia alliance? The advent of the new Liberal National Government provides a rare window of opportunity for Australia to turn its aspirations into a more concrete and lasting reality. This report seeks to assist in such an effort, by detailing which particular operational roles should inform Australia's future force development, based on the extent to which they both reinforce regional conventional deterrence and buttress the U.S.-Australia military alliance.

⁴⁴ Even proponents of alliance minimalism such as Hugh White have argued in favor of an increase in defense spending. See, for instance, Hugh White, "A Middling Power: Why Australia's Defense is all at Sea," *The Monthly*, September, 2012, available at: <http://www.themonthly.com.au/issue/2012/september/1346903463/hugh-white/middling-power>

CHAPTER 2: GAUGING AUSTRALIA'S FUTURE MILITARY ROLES

How should Washington and Canberra adapt their alliance as Beijing continues to expand and enhance its military forces? If the United States and China engage in a competition for influence across the Indo-Pacific region, what steps could Australia take to strengthen conventional deterrence and bolster crisis stability?⁴⁵ Finally, if deterrence fails and crisis stability breaks down, what operational roles might the ADF play alongside or in support of U.S. military forces to overturn acts of aggression? The purpose of this chapter is to address each of these questions.

Although there are a number of scenarios where the United States and China might clash (and therefore where Australia might be called upon to aid its longtime ally), the future of the alliance and the potential evolution of the ADF will depend less on the specific causes of any conflict and more on where a conflict takes place.

For instance, if a crisis occurred in Northeast Asia over the status of Taiwan or a territorial dispute in the East China Sea, Canberra would be unlikely to provide major combat support given that the main theater of operations would be far from its shores. Nevertheless, it could provide critical basing, logistical, and intelligence support to U.S. forces—particularly if China launched preemptive strikes on U.S. facilities or American information, surveillance, and reconnaissance (ISR) assets. Alternatively, if a conflict broke out over contested maritime claims in the South China Sea, Australia would be directly impacted due to its geographic proximity as well as its participation in the Five Power Defence Arrangements.⁴⁶ In this case, then, it might take action to prevent China from holding

⁴⁵ The U.S. Department of Defense defines deterrence as “the prevention of action by the existence of a credible threat of unacceptable counteraction and/or belief that the cost of action outweighs the potential benefits.” See U.S. Department of Defense, *Dictionary of Military and Associated Terms*, July 2013, (last amended), p.81, available at http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf. Political scientist John Mearsheimer has succinctly described conventional deterrence as “a function of the capability of denying an aggressor his battlefield objectives with conventional forces.” John J. Mearsheimer, *Conventional Deterrence* (Ithaca, NY: Cornell University Press, 1983), p.15.

⁴⁶ The Five Power Defence Arrangements, which came into force in 1971, is comprised of Britain, Australia, New Zealand, Malaysia, and Singapore. The founding communiqué pledges that “in relation to the external defence of Malaysia and Singapore, that in the event of any form of armed attack externally organized or supported, or the threat of such attack against Malaysia and Singapore, their Governments would immediately consult together for the purpose of deciding what measures should be taken or separately in relation to such an

any territory it had seized, or perhaps to control access to key maritime chokepoints in the Indonesian archipelago so that allied shipping could proceed unhindered while hostile shipping might be disrupted. Lastly, in the decades ahead the competition between the United States and China could shift from East Asia to the Indian Ocean region, particularly if China develops additional blue water naval capabilities, gains access to support facilities along the Indian Ocean basin, and attempts to patrol the distant sea lines of communication that are vital to its continued economic growth. Should this occur, forward deployed Chinese air and maritime forces could become a threat to Australia during a Sino-U.S. conflict (regardless of where the conflict originated), one that Canberra would be best positioned to address.

Importantly, these scenarios and missions could overlap if conflicts escalate horizontally or become protracted. To enhance deterrence, then, this chapter outlines four different—but not mutually exclusive—roles for the ADF: *Supportive Sanctuary*, *Indo-Pacific Watch Tower*, *Green Water Warden*, and *Peripheral Launchpad*.

Supportive Sanctuary

One of Australia's greatest assets is its strategic depth, due to its distance from continental Asia, as well as its own vast continental landmass. As American forward bases in the western Pacific become increasingly vulnerable to Chinese missile threats, the Australian continent, with its solid infrastructure and local technical expertise, could fulfill an important role as a logistical hub and bastion for the alliance. The growing range of China's anti-access inventory and the heavy emphasis given in Chinese military doctrine on missile intimidation and saturation campaigns suggest that Australia's role as a supportive sanctuary to allied combat operations will become increasingly vital.⁴⁷ Indeed, Australia is, for the foreseeable future at least, at a safe distance from the bulk of China's conventional missile inventory and strike aircraft. While the PLA could conceivably dispatch submarines within range of Australia, the bulk of China's subsurface assets in times of conflict would most likely be concentrated within the second island chain. Roaming wolf packs of Chinese submarines could, potentially, conduct deep mining operations, or sporadic missile attacks against Australian ports and offshore installations. Chinese special operations forces could also be discreetly inserted along Australia's extended coastline in order to conduct raids and sabotage military bases or logistical supply lines. To defend against such threats, the ADF would need to enhance its surveillance of key littoral approaches and heighten security procedures around its bases, as well as in the vicinity of ammunition and fuel depots. In all likelihood, however, any Chinese forays south of the belt of archipelagoes screening Australia's northern approaches would probably resemble the diversionary/harassment operations pursued by the Japanese against the ports of Sydney and Newcastle during World War II. Those attacks, while psychologically disruptive, were too limited in scale to have a major impact on naval dynamics in the Western and Southern Pacific.⁴⁸ Furthermore, the distances and nature of the maritime geography Chinese submarines would have to traverse in order to attack Australia would heighten their state of vulnerability. Diesel electric submarines would

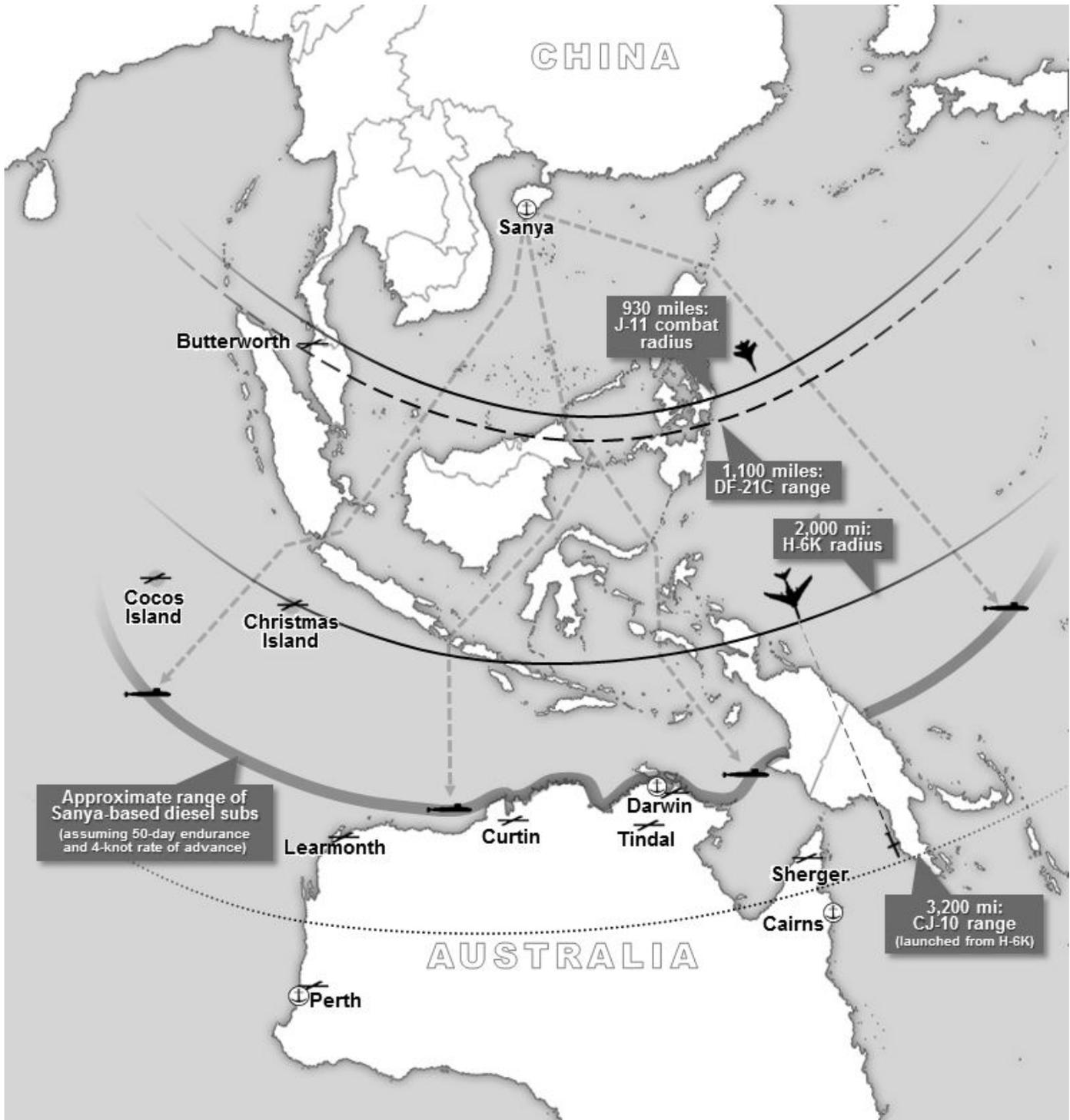
One of Australia's greatest assets is its strategic depth, due to its distance from continental Asia, as well as its own vast continental landmass.

attack or threat". Since then, the organization has evolved into a multilateral, multilayered security structure, which hosts several annual meetings and joint exercises. The organization's operational headquarters are located at the Royal Malaysian Air Force Base Butterworth, which continues to host Australian forces. See Carlyle A. Thayer, "The Five Power Defence Arrangements: The Quiet Achiever," *Security Challenges*, Vol.3, No.1, 2007.

⁴⁷ For an analysis of Chinese doctrinal writings with regard to missile-centric warfare and of the vulnerability of U.S. bases in Japan, see Toshi Yoshihara, "Chinese Missile Strategy and the U.S. Naval Presence in Japan: The Operational View from Beijing", *Naval War College Review*, Vol.63, No.3, 2010, pp.39-62.

⁴⁸ Peter Dennis et al., *The Oxford Companion to Australian Military History* (Melbourne: Oxford University Press, 1995), p.320.

FIGURE 1: AUSTRALIA'S RELATIVE SANCTUARY STATUS



find themselves obliged to surface at various intervals, thus exposing themselves to attack, while the relative loudness of Chinese nuclear submarines' reactors would place them in jeopardy. Given the growing importance of operating from beyond the reach of an opponent's anti-access zone, deploying U.S. long-range penetrating surveillance and strike aircraft, as well as submarines, to Australia could help to shore up the overall military balance in the region.⁴⁹

At present, the United States' bomber wings and submarine fleet are overly reliant on a small number of operating locations in the Indo-Pacific region. In the Western Pacific, the main basing option for U.S. bombers and submarines is Guam, which lies some 1,800 miles from China. Guam, however, may already be within the effective range of Chinese ballistic missiles and is within reach of air- and submarine-launched cruise missiles. In the Indian Ocean, the British island of Diego Garcia also hosts U.S. assets. Although this base lies beyond the range of the PLA's missile forces, it is roughly twice the distance to coastal China (about 3,900 miles) as Guam. This increase in distance would lengthen transit time to potential conflict zones and thereby decrease U.S. combat capability by reducing the amount of time spent on station, sensor and weapons payloads, or both.

Australia represents, for the time being at least, something of a geographic "sweet spot" in the search for potential operating locations outside the reach of China's missile forces.⁵⁰ Airbases on Australia's sparsely populated Northern Territory, Cape York Peninsula in Queensland, and Western Australia lie approximately 2,700 miles from the Taiwan Strait and only 1,700 miles from the South China Sea. The airstrip on Cocos Island in the Eastern Indian Ocean is even closer to the South China Sea -- within 700 miles of the strategic maritime chokepoints at the Sunda and Lombok Straits. Although the distance between the base at Her Majesty's Australian Ship (HMAS) Stirling (near Perth) and the South China Sea is roughly the same as the distance between Guam and the South China Sea, HMAS Stirling's use as a forward operating location for U.S. nuclear-powered submarines would help to diversify port options in theater, while also increasing the operational availability of U.S. submarines in the Indian Ocean and the Persian Gulf. Unlike Guam, all of these locations are outside the reach of the PLA's existing conventional missile forces, as well as those known to be in development.⁵¹ As the United States intensifies its focus on the South China Sea, Australia's northern airbases and Fleet Base West near Perth will become even more attractive as safe bastions for U.S. forces.

Andrew Davies and Benjamin Schreer have noted: "For Australia, the presence of U.S. forces is about much more than just their physical presence. It is about declaring our strategic intent in the burgeoning Sino-U.S. competition in the Asia-Pacific."⁵² Australia has already crossed this strategic Rubicon, providing the U.S. Marine Corps access to Darwin and sharing intelligence, communications and space surveillance facilities at Pine Gap and Exmouth. Moreover, a growing

⁴⁹ The U.S. Department of Defense's 2010 Quadrennial Defense Review describes anti-access and area denial, or A2/AD, as seeking "to deny outside countries the ability to project power into a region, thereby allowing aggression or other destabilizing actions to be conducted by the anti-access power." See U.S. Department of Defense, Quadrennial Defense Review Report, (Washington D.C., 2010), p.31, available at <http://www.defense.gov/qdr/qdr%20as%20of%2026jan10%200700.pdf>.

⁵⁰ One should not presume, however, that this state of affairs will forever remain unchanged. As Chinese missile and strike aircraft extend their operational radius, Australian territory will gradually become less of a sanctuary.

⁵¹ Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2012* (Washington, DC: Office of the Secretary of Defense, 2012), p. 42, available at http://www.defense.gov/pubs/pdfs/2012_CMPR_Final.pdf.

⁵² Andrew Davies and Benjamin Schreer, "Whither US forces? US military presence in the Asia-Pacific and the implications for Australia," Australian Strategic Policy Institute, September 8, 2011, p. 1, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=307.

majority of Australians favor basing U.S. military forces in Australia.⁵³ Two force posture initiatives announced by President Obama and former Australian Prime Minister Gillard involve enhanced aircraft cooperation, which, says the most recent Australian Defence White Paper, “is expected to result in increased rotations of USAF (U.S. Air Force) aircraft through northern Australia.”⁵⁴ In the course of a recent discussion with American defense journalists, the Commander of Pacific Air Forces, General Herbert J. “Hawk” Carlisle, confirmed that Washington and Canberra have discussed and agreed upon deployments of U.S. air assets in Northern Australia on a rotational basis, pointing to the growing importance of locations such as Darwin and Tindal:

Airbases in northwestern Australia could increase the strategic depth of U.S. forces in the region and could serve as launch and recovery sites for long-range surveillance and strike aircraft.

From the Air Force perspective, the potential to go into Darwin and Tindal were the two most common places. Tindal is probably where we’ll potentially start rotating folks through. It is going to be fighters, tankers, at some point in the future maybe bombers. We’ve talked about that. On a rotational basis.⁵⁵

The deployment of U.S. air assets on a non-permanent rotational basis in Australia’s northwest would not solely be to Washington’s strategic benefit. Indeed, Australia would itself stand to gain considerably from such an evolution in the United States’ regional force posture. Access to Australia’s Indian Ocean island territories and to HMAS Stirling could improve interoperability between U.S. and Australian forces. Their dual presence in a resource-rich but population-sparse region of the country, moreover, would create options for commerce defense and help deter future aggression or terrorism against offshore oil and gas platforms, as well as buttress conventional deterrence by signaling allied solidarity in the face of China’s potentially more assertive behavior.

Providing Access to Northwestern Airbases

Airbases in northwestern Australia could increase the strategic depth of U.S. forces in the region and could serve as launch and recovery sites for long-range surveillance and strike aircraft. The bases would also be ideal for hosting aerial refueling aircraft, provided the United States were able to store sufficient fuel at the airbases to support aerial refueling operations. Tankers could support surveillance aircraft and bombers and serve as an “air bridge” refueling tactical fighter aircraft operating over the South China Sea or bombers flying to or from Diego Garcia.

Currently, Australia maintains only a single fighter squadron of F/A-18s at Royal Australian Air Force (RAAF) Tindal in the Northern Territory.⁵⁶ RAAF Darwin, the only northern base that can currently accommodate heavy aircraft like tankers and bombers, periodically serves as a contingency base to host allied aircraft for exercises. In addition to these bases, there are two “bare bases” in northwestern Australia (RAAF Curtin and RAAF Learmonth) and a third on the Cape York Peninsula in Queensland (RAAF Scherger).⁵⁷ With the exception of RAAF Tindal, which has a slightly shorter

⁵³ The proportion of Australians in favor of American military basing has in fact increased by close to 6 % since 2011, and is now estimated at 61 percent. See Alex Oliver, The Lowy Institute poll 2013, 24 June, 2013, available at <http://www.lowyinstitute.org/publications/lowy-institute-poll-2013>.

⁵⁴ Australian Department of Defence, Defence White Paper 2013 (Canberra, 2013), p. 57.

⁵⁵ See transcript of General Carlisle’s discussion with the Defense Writers Group, *Air Force Magazine*, July 29 2013, available at <http://www.airforcemag.com/DWG/Documents/2013/July%202013/072913Carlisle.pdf>.

⁵⁶ See Royal Australian Air Force, “RAAF Base Tindal,” Government of Australia, available at http://www.airforce.gov.au/Bases/Northern_Territory/RAAF_Base_Tindal/?RAAF-hHBYVzFK6EsZI++TiITQwfB6YNnQZ/Lc#TindalMoonlitCinema.

⁵⁷ Australia Ministry of Defence notes that bare bases in Northern Australia “can be used as forward operating bases. Air Force maintains expeditionary support units at its main bases to activate its bare bases or establish new forward operating bases when necessary. Aircraft can be sustained for some months while operating with their support units from a forward base.” Allan Hawke and Ric Smith, *Australian Defence Force Posture Review* (Canberra, Australia: Australian Department of Defence, March 30, 2012), p. 4.

runway, all of these bases have runways of at least 10,000 feet.⁵⁸ Nevertheless, runways would need to be extended to 11,000 feet and strengthened to accommodate fully loaded heavy aircraft such as tankers and bombers. The bases would also need surge capacity ramp space to park larger aircraft.⁵⁹ Most of the airbases in northwestern Australia already have aircraft shelters for ten to twenty fighter-sized aircraft, but with the exception of Tindal, all of these bases are near the sea and would therefore require additional shelters to protect against cyclones. Specialized, climate-controlled shelters would also be needed to accommodate stealth aircraft. Finally, improved fuel handling facilities and parallel taxiways would ideally be constructed to allow high-tempo launch and recovery operations.

Upgrading the air base infrastructure on the Cocos Island would require far greater investment. At present, there are no shelters on the islands, scarce parking space, very limited fuel storage and pumping capacity, and only a short runway (8,000 feet). The air control and maintenance facilities on the island would also require upgrades.⁶⁰ With upgrades, however, the Cocos Islands, in particular, could serve as a launching point for maritime patrol aircraft. Although Christmas Island is closer to the maritime chokepoints at the Sunda and Lombok Straits, its primary role as an immigration detention facility could limit its use for other purposes. Furthermore, Christmas Island's airfield is situated at the top of a sea mount and ends in a cliff. This means that it might be extremely difficult to extend its runway beyond 11,000 feet. Learmonth might actually provide a cheaper and better option, notes Ross Babbage, as it is located closer to the South China Sea than Darwin and benefits from better logistical supply lines.⁶¹

This constellation of main operating bases and bare bases in northwestern Australia, as well as on the Cocos Island, could substantially increase the persistence of Australian and U.S. combat airpower around critical maritime chokepoints and Southeast Asia. Dispersing U.S. long-range strike forces to more bases would reduce the incentives for any power to attempt a crippling first strike at the start of a conflict. By reducing China's military incentives to strike first, crisis stability could be improved. Increasing U.S. striking power in the region could also contribute to non-nuclear deterrence by raising the prospect of a stronger conventional response to any act of aggression or coercion. "Having U.S. forces regularly present at Australia ports and airfields," Andrew Davies and Benjamin Schreer have argued, "will provide a level of conventional deterrence that's well beyond what the Australian Defence Force can generate on its own."⁶² For these reasons, the potential use of these bases has been the focal point of a bilateral U.S.-Australian working group charged with examining options for American access to Australian facilities.⁶³ U.S. defense officials have made clear, however, that they

Increasing U.S. striking power in the region could also contribute to non-nuclear deterrence by raising the prospect of a stronger conventional response to any act of aggression or coercion.

⁵⁸ Runways lengths based on visual inspection of satellite images and data from Australian Department of Defence, *RAAF Base Tindal Redevelopment Stage 5: Statement of Evidence to the Parliamentary Standing Committee on Public Works* (Canberra, Australia: Australian Department of Defence, February 2008), p. 10, available at <http://www.aph.gov.au/house/committee/pwc/tindalstage5/subs/sub001.pdf>; and Australian Transport Safety Bureau, *Runway Excursions: Part 2: Minimising the likelihood and consequences of runway excursions* (Canberra, Australia: Australia Transport Safety Bureau, 2008), Table B-1, available at http://www.iata.org/iata/RERR-toolkit/assets/Content/Contributing%20Reports/ATSB_Runway_Excursions_Report_Part_II.pdf.

⁵⁹ Ramp space is too limited based on visual inspection of photos and satellite images.

⁶⁰ Allan Hawke and Ric Smith, *Australian Defence Force Posture Review* (Canberra, Australia: Australian Department of Defence, March 30, 2012), p. 26.

⁶¹ Authors' conversation with Ross Babbage, Washington D.C., August 2013.

⁶² Andrew Davies and Benjamin Schreer, "Whither US forces? US military presence in the Asia-Pacific and the implications for Australia," Australian Strategic Policy Institute, September 8, 2011, p. 1, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=307.

⁶³ See Nicole Gaouette, "Gates Says U.S. to Increase Asia Military Presence, Australia Defense Ties," *Bloomberg News*, November 7, 2010, available at <http://www.bloomberg.com/news/2010-11-08/gates-says-u-s-to-increase-asia-military-presence-australia-defense-ties.html>; and Jackie Calmes, "A U.S. Marine Base for Australia Irritates

are not interested in permanent U.S. bases in Australia.⁶⁴ Rather it is deemed more judicious to pursue a policy of “places rather than bases,” seeking to use shared facilities on a rotational basis alongside the ADF.

The biggest impediment to using the northwestern air bases, beyond basic cost constraints to improve their facilities, may be the logistical challenge in supplying them.

Employing these bases for more routine allied air operations would necessitate a conceptual shift in ADF thinking about the bare bases. Historically, the bare bases have been manned with only skeleton crews or handfuls of caretakers who maintain them year-round. The ADF’s concept of employment for the bases has been to surge aircraft from southern main operating bases to northern bases only in crisis. This concept, however, may undermine rather than enhance crisis stability, as flying into the bases in a crisis could be seen as an escalatory move. Over time, it might be prudent to adopt a new posture with steady state manning and sustained base support combined with more frequent rotational deployments of U.S. and Australian surveillance and strike aircraft.

The biggest impediment to using the northwestern air bases, beyond basic cost constraints to improve their facilities, may be the logistical challenge in supplying them. Greater use of remotely operated and highly reliable unmanned systems could alleviate this concern, as these qualities in combination can significantly reduce deployed manpower requirements. Remote piloting and mission management could further reduce the manpower footprint at the remote bases, and the resulting amount of investment required for their construction.

However, as the Australian Defence Force Posture Review Report concluded:

Fuel storage and supply is a critical limiting factor for air bases. The effectiveness of forward bases depends on their ability to supply sufficient fuel to conduct operations at high tempo over a protracted period (months rather than days or weeks) and maintain a reliable supply chain to sustain these operations.⁶⁵

Australia’s sheer vastness provides it with key advantages in terms of strategic depth but presents certain logistical challenges associated with the management of extended supply lines. Indeed, for the time being, all of Australia’s major oil refineries capable of producing jet fuel (JP-8) lie along its southern coast stretching from Brisbane in the east to Perth in the west. At this time, there are insufficient pipelines to pump fuel to northern operating locations, so oil and jet fuel would have to be shipped from elsewhere. In all likelihood, fuel would be transported by rail to northern ports, such as Darwin, and then trucked or pumped through local pipelines to the other airbases. Unfortunately, during the rainy season, roads connecting the bare bases to northern ports might be impassable.⁶⁶ Thus, improving highway and rail links to these bases and strengthening the nation’s infrastructural “endoskeleton” should be a priority.

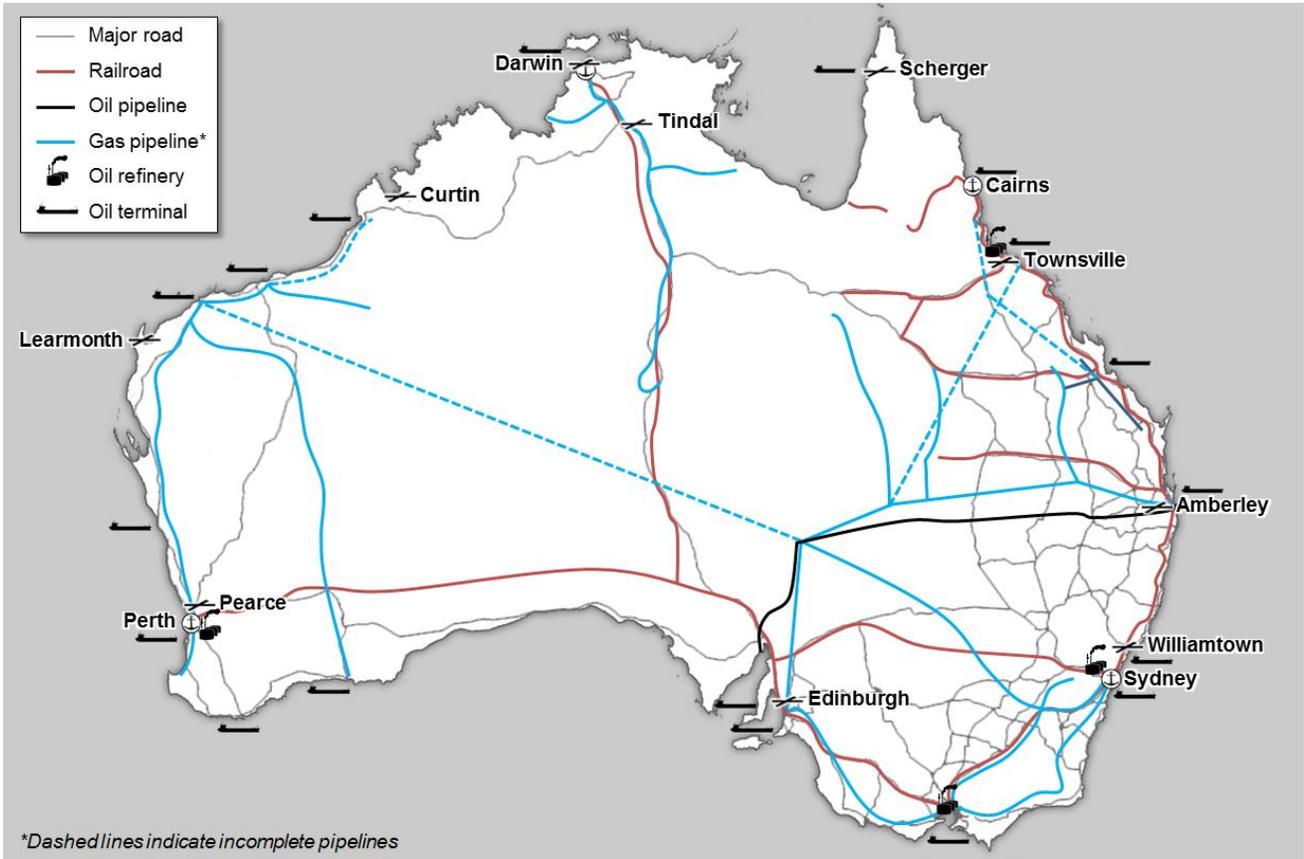
China,” *New York Times*, November 16, 2011, available at <http://www.nytimes.com/2011/11/17/world/asia/obama-and-gillard-expand-us-australia-military-ties.html?pagewanted=all>.

⁶⁴ Craig Whitlock, “U.S., Australia Will Broaden Military Ties Amid Pentagon Pivot to SE Asia,” *Washington Post*, March 27, 2012, available at http://www.washingtonpost.com/world/national-security/us-to-expand-ties-with-australia-as-it-aims-to-shift-forces-closer-to-se-asia/2012/03/19/gIQAPSLcS_story.html.

⁶⁵ Allan Hawke and Ric Smith, *Australian Defence Force Posture Review* (Canberra, Australia: Australian Department of Defence, March 30, 2012), p. 41.

⁶⁶ Hawke and Smith, *Australian Defence Force Posture Review*, pp. 41, 47.

FIGURE 2: AUSTRALIA’S ENERGY, ROAD, AND RAILROAD INFRASTRUCTURE



It would also be imprudent to assume that tanker ships will be able to deliver fuel on a consistent basis in a conflict. Replenishment ships, like oil tankers, would be attractive targets in a conflict and could be seen as the most effective way to limit a U.S.-led air campaign. Building up Australia’s northern coastal refining capacity, strategic fuel stockpiles, fuel distribution network, and fuel storage capacity should therefore be considered top priorities, not only to maximize the operational benefits derived from the use of these air bases, but also as a means of reducing the vulnerability of U.S. supply lines across the Pacific.

Australian airbases should also be stocked with prepositioned equipment, spare parts, and precision guided munitions (PGMs) for use by either U.S. or Australian military aircraft. The United States and Australia should consider stockpiling commonly used weapons, such as AIM-120 Advanced Medium-Range Air-to-Air Missiles (AMRAAMs), Harpoons, and Joint Direct Attack Munitions (JDAMs), as well as air-launched Mk-46 torpedoes and air-delivered sea mines. In building up its stockpiles, Australia would need to account for the aforementioned possibility of special operations attacks

against these strategic bases by establishing dedicated base protection and perimeter security patrols at each site.⁶⁷

As noted earlier, improving the airbases to support allied air operations would require additional investment. The Australian Strategic Policy Institute estimates that Australia has already spent about \$800 million on construction of Tindal and the three bare bases on the northern coast.⁶⁸ Building a network of distribution pipelines in the northwest might come at considerably greater cost but would produce more than simply military benefits. As the region takes on greater importance in Australia's economy, particularly for mining and natural gas production, improvements in the local infrastructure will support Australia's economic development goals as well as national security objectives. Still, funding for upgrades will likely remain the key issue between Australia and the United States. Despite the costs, upgrading Australia's strategic bases and allowing U.S. forces to operate from shared facilities on a regular basis would provide a means of capitalizing on Australia's geostrategic position, while strengthening Australia's defense ties and interoperability with the United States.

Early in a regional conflict, nuclear-powered attack submarines (SSNs) and guided-missile submarines (SSGNs) would likely be among the most attractive options for operating deep inside heavily contested maritime zones.

Supporting U.S. Submarine Operations in the Indo-Pacific

Australia could also play a crucial role by providing support to U.S. submarine operations in the wider Indo-Pacific. As several analysts have noted, the U.S. submarine force would likely play an increasingly important role in future regional contingencies.⁶⁹ Anti-Submarine Warfare remains an area in which the U.S. Navy retains an unparalleled proficiency. In addition, submarines, by virtue of their stealth and the nature of the medium in which they operate, are among the least vulnerable forces to anti-access/area denial (A2/AD) challenges.

Early in a regional conflict, nuclear-powered attack submarines (SSNs) and guided-missile submarines (SSGNs) would likely be among the most attractive options for operating deep inside heavily contested maritime zones. Indeed, submarines might provide the only immediately available combat forces able to conduct certain critical missions, such as attacking land targets, mining enemy ports, intercepting enemy ships, and suppressing enemy ground-based air defenses to enable friendly air operations.⁷⁰

Although the operational endurance of nuclear submarines is ultimately limited by the amount of food supplies on board, they do face certain other limitations. U.S. nuclear-powered attack submarines have greater payload capacity than their diesel-powered counterparts, but neither vessel can reload weapons at sea. As a result, American submarines might find themselves confronted with a set of challenging operational dilemmas. They could be employed for missions other than anti-submarine warfare but would quickly exhaust their limited magazines of torpedoes, mines, land-attack cruise missiles, and anti-ship cruise missiles. Additionally, nuclear submarines might conserve their weapons to intercept enemy submarines returning to port, at the expense of their availability to conduct other time-sensitive missions.

⁶⁷ As Tindal is located further inland than Darwin or Curtin, it is somewhat less vulnerable to Chinese sea-borne special operations attacks.

⁶⁸ Andrew Davies and Mark Thomson, "Who Goes Where? Positioning the ADF for the Asia-Pacific Century," Australian Strategic Policy Institute, 90, 19 September 2011, p. 4, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=311.

⁶⁹ Owen R. Cote Jr. "Assessing the Undersea Balance between the United States and China," Thomas G. Mahnken, Ed., *Competitive Strategies for the 21st Century: Theory, History and Practice* (Stanford, CA: Stanford University Press, 2012), pp. 184-206.

⁷⁰ Owen R. Cote Jr., *Submarines in the Air Sea Battle* (Baltimore, MD: Johns Hopkins University, 2010), p. 1, available at http://web.mit.edu/ssp/publications/conf_reports/3coteorPAD3.pdf.

As the United States increases its reliance on its SSNs and SSGNs to penetrate and operate covertly inside hostile A2/AD zones, the ability to launch and recover submarines from multiple locations beyond the range of hostile missile and naval platforms will likely grow in importance. Ports on the northern coast of Australia would be ideal for berthing U.S. submarines were it not for their extreme tidal cycles. Even if ports are accessible at low tide, tidal movements and obstructions such as sandbars and reefs complicate approaches. Furthermore, port infrastructure would require massive floating docks. Although much farther away from key operating locations than a northern port like Darwin, Fleet Base West at HMAS Stirling could still be an attractive option from an American standpoint. Berthing U.S. submarines at HMAS Stirling would reduce the risk of overreliance on Diego Garcia and Guam, providing a relatively safe rear area for maintenance, resupply, and weapons reloading.⁷¹ Unlike Guam, HMAS Stirling is well beyond the current reach of the PLA's conventional ballistic missile forces. It would also facilitate closer relations and interoperability between U.S. and Australian submarine forces. Above all, having an additional submarine port on the Indian Ocean could increase available combat power in both the U.S. Central Command and U.S. Pacific Command areas of responsibility.

There are several upgrades to HMAS Stirling that might be required to support future U.S. submarine deployments. Piers might need to be extended to accommodate larger U.S. submarines. Dredging may also be needed to deepen the port and channel to Cockburn Sound. Special munitions storage, missile loading cranes, and maintenance facilities would also have to be constructed. In particular, the base's ability to reload land-attack and anti-ship missiles in the Virginia-class SSNs' vertical launch systems would be an important asset. Configured in this manner, HMAS Stirling could enable U.S. submarines to reload weapons or undergo repairs in a relatively secure rear area.

Indo-Pacific Watch Tower

Australia's unique geography and decades of close ISR cooperation with the United States provide the foundation for expanding its role in reconnoitering the Indo-Pacific, space, and cyber domains. Allan Hawke and Ric Smith noted in Canberra's latest Defense Force Posture Review that Australia's "cyber and space capabilities are increasingly important priorities..."⁷²

With its current ISR capabilities, Australia could make a vital contribution by providing intelligence to U.S. forces to pinpoint the precise locations and movements of hostile ships and aircraft far north of Australia. One important capability in this regard is Australia's distributed, multi-static Jindalee Over-the-Horizon Radar Network (JORN), which monitors Australia's northern maritime approaches at ranges from 1,000 to 3,000 kilometers.⁷³ JORN can detect and locate aircraft, missiles, and ships, allowing Australia to monitor key maritime chokepoints and sea lanes to its north. Looking ahead, JORN might be upgraded to increase its ability to detect and track ballistic missile launches along with stealthy aircraft and cruise missiles. Australia might also consider approaching other regional states to host additional receiver stations to augment JORN, thereby improving the system's performance far north of Australia.

⁷¹ Allan Hawke and Ric Smith, *Australian Defence Force Posture Review: Initial Assessments Against the Review's Terms of Reference, Attachment C* (Canberra, Australia: Australian Department of Defence, 2012), p. 16, available at <http://www.defence.gov.au/oscdf/adf-posture-review/docs/interim/AttachC.pdf>.

⁷² Allan Hawke and Ric Smith, *Australian Defence Force Posture Review* (Canberra, Australia: Australian Department of Defence, March 30, 2012), p. 10.

⁷³ "Projects: JP 2025- Jindalee Operational Radar Network (JORN)," Australian Department of Defense, July 15, 2009, available at <http://www.defence.gov.au/dmo/esd/jp2025/jp2025.cfm>.

Australia's southern hemispheric position is ideal for tracking space debris, as well as observing regional space launches and determining changes in the orbital behavior of space systems.

In addition, data from JORN should be integrated with intelligence collected from a variety of other sensors, including Australia's Wedgetail Airborne Early Warning and Control aircraft, Hobart-class air defense destroyers, space-based sensors, and other airborne collectors such as high-altitude, long-endurance (HALE) maritime surveillance unmanned aerial vehicles (UAVs), and P-8 Poseidon maritime patrol aircraft. Australia's Vigilare command and control system is designed to perform this role and could improve data fusion across a range of allied sensors. Australia plans to establish a new "Strategic Fusion Integration Facility" for integrating ISR feeds from JORN and various surveillance aircraft, including the Wedgetails and P-8s, as well as satellite imagery, signals intelligence, and other data.⁷⁴ Australia and the United States might consider making this a shared facility capable of processing, exploiting, and disseminating ISR amongst the two countries' forces. Doing so would enhance their situational awareness in the Indo-Pacific.

Australia could also enable allied defense operations by deepening its cooperation with the United States in space surveillance and control. Australia's southern hemispheric position is ideal for tracking space debris, as well as observing regional space launches and determining changes in the orbital behavior of space systems. This could be particularly useful with respect to Chinese satellite launches. The sparse population in Western Australia reduces the potential for radio frequency interference with satellite signals, and cloud-free conditions in Australia's western desert are ideal for satellite tracking. The United States is developing a "Space Fence" for improved space situational awareness as part of its upgraded Space Surveillance Network. In 2010, Australia entered into a Space Situational Awareness Partnership with the United States, and at the 2012 Australia-U.S. Ministerial Meeting leaders agreed that the U.S. would station a C-Band space surveillance radar at the Harold E. Holt Naval Communications Station in Western Australia in 2014.⁷⁵ The system would extend the coverage of the U.S. Space Surveillance Network and improve its ability to monitor space launches and track satellites.⁷⁶ The two countries also agreed to "work toward the relocation of an advanced U.S. space surveillance telescope" that would complement the C-Band radar system, as well as establish a Combined Communications Gateway for the Wideband Global Satellite constellation of communications satellites to improve military networks in the Western Pacific. In response to the surge in U.S.-Australia space-based defense cooperation, the 2013 Defence White Paper announced Canberra's intention to increase the number of space-trained personnel "in order to maximize the benefit of such investments in space and cooperation with the United States."⁷⁷

Finally, enhancing Australia's cyber and electronic warfare capabilities could also strengthen the allies' ability to monitor cyberspace and potentially disrupt hostile ISR and command and control systems during a conflict. Australian strategist Ross Babbage has suggested that Australia might undertake "sustained investment in high-grade cyber and information warfare capabilities for use both in protecting Australian and allied systems and also for infiltrating, disrupting, and/or damaging an

⁷⁴ Allan Hawke and Ric Smith, *Australian Defence Force Posture Review* (Canberra, Australia: Australian Department of Defence, March 30, 2012), p. 52.

⁷⁵ Department of Defense, "AUSMIN 2012 Joint Communique," November 14, 2012, available at <http://www.defense.gov/Releases/Release.aspx?ReleaseID=15679>.

⁷⁶ Space Industry Working Group, "The 'Big Ear' Concept: Location, Location, Location! Working Group Final Report," Space Industry Innovation Council, March 2011, available at http://www.space.gov.au/SpaceIndustryInnovationCouncil/Documents/The%20Big%20Ear%20for%20the%20Southern%20Hemisphere_Space%20Council%20Working%20Group%20Paper%20Final.pdf; and "Australia-United States Space Situational Awareness Partnership Fact Sheet," Australia-United States Ministerial Consultations 2010, available at <http://www.dfat.gov.au/geo/us/ausmin/Space-Situational-Awareness-Partnership-fact-sheet.pdf>.

⁷⁷ Australian Department of Defence, *Defence White Paper 2013* (Canberra, 2013), p. 81.

opponent's critical command and control and other high-value electronic systems.”⁷⁸ Australia's signals intelligence expertise could provide the foundation for a first-class cyber warfare capability. Cyber capabilities are necessary to defend Australia's networks and to map or potentially disrupt hostile networks.⁷⁹ The issue of cyberdefense has gained added salience in Australia, with a recent flurry of media reports expressing outrage over the apparent cyber-theft of the floor plans of the Australia Security Intelligence Organization's (ASIO) new headquarters.⁸⁰ In response to growing concerns over the safety of the nation's industrial and military secrets, the Australian government announced in January 2013 the creation of a new Australian Cyber Security Center, which will fulfill a vital role by centralizing the nation's cyber security skills, which are currently scattered across several different agencies. Such moves towards greater coordination are steps in the right direction, yet some Australian security analysts have urged the Australian government to go much further, arguing that in the absence of a clear National Cyber Security Plan, Australia's economic and technological infrastructure will remain an alluring target for prospective adversaries.⁸¹ Conversely, acquiring the capability to conduct offensive cyber warfare could provide a middle power like Australia with a much-needed asymmetric edge, enabling it to deter or impose severe costs on a more conventionally powerful adversary.

Green Water Warden

Australian strategic culture has throughout history been marked by several apparent contradictions, not least of which is the tendency to revert to what some have referred to as a “continental reflex,” which has led it to turn inwards. This has led some to the conclusion that “Australians are a coastal people with a continental outlook, an island nation with an inward focus.”⁸² And indeed, for many years, Australian strategists tended to view the island-speckled waters close to their northern shores as a protective moat rather than as a maritime maneuver space. This attitude was, in many ways, the product of Australia having benefited from the protection proffered by a superior navy for its entire history—first the Royal Navy, then the U.S. Navy—without having to pay much or any of the costs associated with preserving such a strong maritime security guarantee. Following the United States' enunciation of the “Guam Doctrine” in 1969, Australian defense planning focused for at least two decades on continental defense and the need to deny an enemy's approach of the “sea-air gap” between the Indonesian archipelago and Australia's northern coast through a narrowly defined strategy of sea denial, or through erecting what some have dismissed as a “blue-water Maginot

⁷⁸ Ross Babbage, “Strategic Competition in the Western Pacific: An Australian Perspective,” in Thomas G. Mahnken, Ed., *Competitive Strategies for the 21st Century: Theory, History and Practice* (Stanford, CA: Stanford University Press, 2012), p. 250.

⁷⁹ A 2011 report by Australia's Defense Signals Directorate (DSD) notes that, “informed by its signals intelligence expertise and capabilities, DSD can provide agencies with advice and assistance as well as further information on the cyber threat.” “2012 Australian Government Information Security Manual Executive Companion,” Australian Department of Defence, 2011, p. 18, available at http://www.dsd.gov.au/publications/Information_Security_Manual_2012_Exec_Companion.pdf.

⁸⁰ See Miles Godfrey, “Hacking: Chinese spies steal ASIO blueprints,” AAP, May 27, 2013, available at <http://www.news.com.au/technology/hacking-chinese-spies-steal-asio-blueprints/story-e6frfro0-1226651694269>.

⁸¹ Desmond Ball and Gary Waters, “Cyber Defence and Warfare,” *Security Challenges*, Vol.9, No.2, 2013, pp. 91-98. Peter Jennings, a former Defence Ministry official, has recently argued that Australia's new government should commit to a Cybersecurity White Paper within 12 months of taking office. See “Agenda for Change: Strategic Choices for the Next Government,” (Canberra: Australian Strategic Policy Institute, 2013), p. 10, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=372.

⁸² Frank Boeze, “Maritime Australia: Integrating the Sea into our National History,” *Maritime Studies*, May-June 1995, pp. 9-16.

While Chinese forces operating within much of the South and East China Seas would benefit from a “home field advantage” and interior lines, this would not be the case in waters further south.

Line.”⁸³ The most recent Australian White Paper, for its part, seems to opt for a posture of selective sea control rather than one of pure denial, stating that one of the structural pillars of Australia’s maritime strategy is not only to “deter adversaries from conducting attacks against Australia or attempting coercion,” but also “to achieve and maintain sea control in places and at times of our choosing in our approaches.” This multi-faceted approach places a greater emphasis on operational flexibility and on a high level of jointness. Naval War College Professor Milan Vego has argued that by combining littoral naval warfare with amphibious land capabilities, shore-based artillery, and effective air support, smaller nations can impose severe costs on more powerful foes venturing into archipelagic environments.⁸⁴ Australia’s relative proximity to the southern Indonesian archipelago, when combined with the diversity and high level of jointness of its armed forces, mean that it could play a vital role policing the Lombok and Sunda Straits.

The ADF would have several inherent advantages over the Chinese PLA in the event of a contest for control over the Indonesian straits. This regional sub-theater could become a key military flashpoint, particularly in the event of a successful blockade of the more heavily utilized Malacca Strait, in which case the locus of conflict would no doubt move from China’s near seas towards alternative maritime trade routes proximate to both Australia and Indonesia. While Chinese forces operating within much of the South and East China Seas would benefit from a “home field advantage” and interior lines of communication, this would not be the case in waters further south. In contrast to the ADF, Chinese forces approaching the Indonesian archipelago might have to do so with little or no air cover, limited ISR, and vulnerable lines of communication.⁸⁵ For PLA naval forces, contesting the maritime chokepoints would require deploying and sustaining naval forces over 1,800 miles from their bases. Most current and programmed PLA air and naval systems lack the range to contest the straits, and even if they attempted to do so, they would be vulnerable to attack by allied forces. Although Chinese anti-ship ballistic missiles (ASBMs) might be able to hold at risk some large surface ships enforcing a blockade, the PLA’s ISR would be limited, and it is unlikely that ASBMs would be employed against smaller ships. The natural geography of the region, which funnels vessels through a small number of chokepoints, would also reinforce Australia’s operational edge by allowing the ADF to concentrate on establishing chokepoint control with maritime surveillance aircraft, frigates, and submarines.

While Australian efforts to exert wide-area sea control might require a substantially larger air and naval force, localized sea control could be achieved with a numerically smaller force. Australian forces would be both nearer to their home ports and airbases and less vulnerable to attack. The ADF’s numerically inferior aircraft, submarines, and ships could thus devote more of their payloads to ISR and strike capabilities rather than to self-defense systems.⁸⁶ Australia’s efforts to exert chokepoint control would entail four lines of operation:

⁸³ Former Chief of the Army Lt. Gen Hickling, quoted by Michael Evans in “The Tyranny of Dissonance: Australia’s Strategic Culture and Way of War, 1901-2005,” (Canberra: Australian Land Warfare Studies Centre, 2005), p. 29.

⁸⁴ Milan N. Vego, *Naval Strategy and Operations in Narrow Seas* (New York: Frank Cass Publishers, Second and Expanded Edition, 2003). First published by Frank Cass, London, in 1999.

⁸⁵ Kenneth Boulding famously described the gradual erosion of power projection over distance as the “*loss of strength gradient*”. In sum, the more remote a prospective target, the less strength one can bring to bear. See Kenneth Boulding, *Conflict and Defense* (New York: Harper and Row, 1963), p. 262.

⁸⁶ Australia’s efforts in establishing chokepoint control could be potentially be supplemented by US amphibious and naval assets newly located in its near vicinity. Indeed, US Chief of Naval Operations Jonathan Greenert recently announced that the US Navy planned to “provide amphibious lift for US marines operating out of Australia by establishing a fifth amphibious readiness group (ARG) in the Pacific by financial year 2018”. The ARG would not be based in Australia but would enable the US to react more rapidly to various contingencies

Maintaining Continuous Wide-Area Maritime Surveillance

Australian forces could maintain constant surveillance of aircraft and ships in the vicinity of the straits. Given the congestion around the straits, a variety of sensors would be needed to detect and identify aircraft and ships. HALE UAVs could provide long-dwell, all-weather detection of enemy warships and cargo craft, along with cueing for other maritime patrol aircraft and naval combatants. Wedgetails could provide early warning of approaching hostile aircraft. During World War II, the ADF deployed elite Z-Commando teams in liaison with American submarines to monitor and disrupt Japanese naval deployments in archipelagic waters and embedded “coast watchers” close to key straits in order to provide critical intelligence on enemy movements.⁸⁷ ADF Special Operations Forces could reprise such a role by deploying close to the Lombok and Sunda Straits and providing on the ground intelligence to allied naval and air assets.

Establishing Air Superiority at Range

RAAF aircraft could set conditions for maritime strike by exploiting two advantages in key maritime chokepoints. First, Australia might not have to conduct continuous combat air patrols (CAP) over the chokepoints since few PLA aircraft have adequate range to challenge them. Although Chinese H-6 bombers could deliver ASCMs and Land Attack Cruise Missiles (LACMs), they would have to do so without fighter escorts and would therefore be vulnerable to attack. Second, the PLA’s ability to challenge RAAF CAPs would generally be limited to air defense destroyers, such as the Luyang II (Type 052C) guided missile destroyers, which would have to traverse the South China Sea to challenge aircraft operating near the straits. Thus, an early ADF priority would be eliminating the naval anti-air threat. This form of maritime suppression of enemy air defenses (SEAD) could best be accomplished by submarines intercepting the destroyers as they make their way south or by long-range aircraft armed with stealthy anti-ship missiles like the Long-Range Anti-Ship Missile currently in development that could outrange the Luyang II’s interceptors. The missile-carrying aircraft need not be supersonic or stealthy but would require long-endurance and large-payloads for long-range anti-ship, and possibly long-range anti-air, weapons. Given the relatively small number of air defense destroyers that might need to be engaged, the ADF would not need to devote a large force to maritime SEAD.

Conducting Anti-Surface and Anti-Submarine Warfare

The RAAF and Royal Australian Navy (RAN) would have to be prepared to respond rapidly to potential hostile contacts detected by ADF airborne and undersea assets. Chinese conventional fast attack submarines based on Hainan Island might be able to transit the South China Sea and reach the straits, thereby threatening allied ships attempting to enforce a blockade of the Sunda and Lombok Straits. One of the most effective anti-surface warfare and anti-submarine warfare platforms in the ADF’s inventory would be the RAN’s own submarines, which could intercept PLAN surface ships and submarines making their way south. Australia’s diesel-electric submarines could prove particularly hard to detect in the shallow, acoustically challenging waters of the Sunda and Lombok Straits.⁸⁸ At the operational level, one could envisage a division of labor between American and Australian subsurface assets, with American nuclear submarines engaging Chinese submarines in the

At the operational level, one could envisage a division of labor between American and Australian subsurface assets.

arising in littoral waters along the congested “maritime crossroads” of the Indo-Pacific. See Cameron Stuart, “US Boosts Regional Military Footprint,” *The Australian*, August 23, 2013.

⁸⁷ For a history of Australia’s Z-Commando Operations, see A.B. Feuer, *Australian Commandos: Their Secret War Against the Japanese in WWII*, (Westport: Greenwood Publishing, 1996).

⁸⁸ This is particularly true with regard to the Lombok Strait, which is characterized by a shallow sill along its southern edge. This creates large current flows, and produces complicated acoustic conditions for sonar on account of the varying temperature and salinity gradients across the current-related levels.

deeper portions of the South China Sea, while Australian conventional submarines lie in wait in archipelagic waters for Chinese submarines attempting to escape the deep water kill zone. By switching off their engines and lurking on the seabed close to key chokepoints, Australian submarines could exact a heavy cost on Chinese vessels. Cued by off-board sensors, the RAAF could also use P-8 Poseidons or future long-endurance and large payload unmanned combat air vehicles (UCAVs) in order to serve as on-call missile dispensers or to sow sonobuoys and smart mines.

Whether Australia could deploy forces on Indonesian soil or within Indonesian waters in the event of a conflict with China remains an open question, which would largely depend on the state of Jakarta's ties with Beijing at the time. Due to Indonesia's history of non-alignment and continued attachment to neutrality, this could probably only occur if Chinese actions were perceived as directly impinging upon Indonesia's sovereignty.⁸⁹ In the event that Indonesia acquiesced, either overtly or covertly, to such a presence, both the Sunda and Lombok Straits present certain key geographical characteristics amenable to the effective deployment of coastal anti-access systems. The Sunda Strait, in particular, is extremely narrow at its northeastern end, with a width of less than 15 miles. Australian ground forces equipped with anti-ship and anti-air missiles concealed within the jungle terrain of Cape Tua in Sumatra or of Cape Puja on Java could add strength to a multi-layered blockade. Mobile missile launchers rotating up and down the continental edges of the Indonesian archipelago could be tasked with adding mobile and rapidly deployable coastal firepower to allied efforts.

Blockading and Escort Operations

Australia's main efforts tied to enforcing a blockade would be the escorting of friendly ships through maritime chokepoints. This would be a platform-intensive mission, requiring the bulk of the RAN's ships. Given the quantity of ships that pass daily through the straits, maritime interdiction operations could easily consume the RAN's principal surface combatants (12 frigates, 14 patrol craft, and 9 mine countermeasures ships), as well as its amphibious ships, which could serve as command ships and host helicopters and ribbed inflatable boats. To this end, just as U.S. aircraft and submarines might increase their use of Australian bases, the ADF might seek access to other countries' ports and airfields in the Indian Ocean and South China Sea. For example, Malaysia and Singapore might allow Australia to conduct maritime surveillance patrols from their bases, or the Philippines might grant landing rights for ADF aircraft or port visits for its naval vessels.⁹⁰

Peripheral Launchpad

Australia could also serve a vital role as a launchpad for extended peripheral operations in the Indian Ocean. Indeed, while much attention has been focused on the problem of projecting power effectively into a hostile A2/AD zone, peripheral operations could also be undertaken to impose costs on an aggressor and erode its will to continue waging war.⁹¹ As Colin S. Gray has noted, "a sea power with an army second class in size, if not in quality, can pursue the indirect approach with peripheral raiding or sustained campaigns in regions far removed from the center of gravity of the strength of the

⁸⁹ Indonesian strategists have described the US's rebalancing to Asia as presenting Indonesia with a "maritime dilemma," by rendering a rigid adherence to neutrality increasingly challenging. See, for example, Ristian Atriandi Supriyanto, "The US Rebalancing to Asia: Indonesia's Maritime Dilemma," *PacNet Number 30A*, Pacific Forum CSIS, May 2, 2013, available at <http://csis.org/files/publication/Pac1330A.pdf>.

⁹⁰ Depending on the context, Australia, Malaysia or Singapore could invoke the Five Power Defence Arrangements.

⁹¹ See Jan van Tol, Mark Gunzinger, Andrew Krepinevich, and Jim Thomas, "Air-Sea Battle: A Point-of-Departure Operational Concept," Center for Strategic and Budgetary Assessments, 2010.

continental enemy”.⁹² The ability of maritime powers to “wait out” and disrupt the focus of continental powers by horizontally expanding the theater of operations is a latent advantage for the United States and Australia. Some American strategists have argued that this should form the core component of America’s strategy in the event of a conflict in China, and that the United States and its allies should focus first and foremost on conducting peripheral operations in order to hold China’s distant sea lines of communication (SLOCs) at risk.⁹³

China’s economic engine is highly sensitive to the free flow of commodities from overseas markets. Most of China’s sea-borne trade with Africa and the Middle East flows through the Indian Ocean. A credible ability to restrict sea-trade along this vast maritime highway could help to deter conflict or, if deterrence failed, raise China’s costs should it persist in fighting a protracted war.⁹⁴ Some analysts have suggested a division of labor between the United States and Australia in which the United States would “be primarily deployed in the heart of the Western Pacific Theater of Operations, while Australia, at the rearguard, could simultaneously conduct disruptive peripheral actions from its vast western seaboard into the Indian Ocean.”⁹⁵ In this context, Australia might backfill U.S. forces in the Southwest Pacific and coordinate a distant blockade in concert with regional allies and partners, using its air and naval forces to restrict commercial shipping bound for China.⁹⁶

Australia could also participate in operations against isolated Chinese naval task forces in the Indian Ocean. At the outset of hostilities, a portion of China’s naval forces might be dispersed across the Indo-Pacific, discharging custodial duties in the Gulf of Aden or operating out of shared basing facilities in places such as Gwadar, a deep-sea port situated along Pakistan’s Makran coast.⁹⁷ These forces, once activated for combat purposes, could pose a threat to allied naval assets and commercial shipping transiting through the Indian Ocean. The ADF could make a useful contribution by leading or participating in operations against isolated Chinese naval task forces in the Eastern and Southern parts of the Indian Ocean.

The Indian Ocean is a wider and less contested zone than other maritime sub-regions such as the South China Sea. In the future, however, the northern half of the Indian Ocean will likely morph from

⁹² Colin S. Gray, *The Leverage of Seapower*, (New York: Macmillan, 1992), p.32.

⁹³ For a study of the merits and flaws of various peripheral naval campaigns throughout history, see Bruce Elleman and S.C.M. Paine, Eds., *Naval Power and Expeditionary Warfare: Peripheral Campaigns and New Theaters of Naval Warfare*, (New York: Routledge Cass Series, 2011).

⁹⁴ See T.X. Hammes, “Offshore Control is the Answer,” *Proceedings*, Vol. 138, No.12, 2012.

⁹⁵ Iskander Rehman, “From Down Under to Top Center: Australia, the United States, and this Century’s Special Relationship,” (Washington, DC: Transatlantic Academy, 2011), p. 18.

⁹⁶ Other Australian strategists have suggested similar approaches, including Hugh White who has written: “the overriding aim of our naval forces should be to help deny the sea approaches to Australia and our close neighbours to hostile forces, and to contribute to larger coalition sea-denial operations further afield in the Asia-Pacific.” Hugh White, *A Focused Force: Australia’s Defence Priorities in the Asian Century* (Double Bay, Australia: Lowy Institute, 2009), p. 49. Writing over a decade ago, Carlo Kopp suggested a three part plan for regional maritime denial: “1) A sufficient number of competitive fighter aircraft and aerial refueling tanker aircraft to engage and destroy any air or sea threat which has penetrated Australian air space or waters. 2) Sufficient surveillance, early warning and command-control-communications assets to detect, track and control engagements against any air or sea threat which has penetrated Australian air space or waters. 3) Sufficient Anti Submarine Warfare assets and submarine capabilities to engage and destroy any hostile submarines which approach within cruise missile launch range of the Pilbara and Timor Sea.” Carlo Kopp, “A Future Force Structure for the Australian Defence Force: A Response to the Green Paper,” Submission to the Minister of Defence, April 21, 2002, p. 11, available at <http://www.ausairpower.net/cct-submission-pdf>.

⁹⁷ Since 2008, China has continuously deployed naval task forces in anti-piracy operations in the Gulf of Aden and waters off the Somali coast. For a detailed and nuanced analysis of China’s growing naval presence in the Indian Ocean, see Daniel J. Kostecka, “Places and Bases: The Chinese Navy’s Emerging Support Network in the Indian Ocean,” *Naval War College Review*, Vol.64, No.1, 2011.

The foremost operational challenge faced by any force operating in the Indian Ocean is the tyranny of distance.

a relatively open flank to a much more contested zone, as China's reconnaissance-strike complex gradually takes on a more southwestern orientation, arching over large portions of the Indo-Pacific maritime basin.⁹⁸ In this case, Australia would find itself confronted with a new series of challenges in the conduct of peripheral operations.

The foremost operational challenge faced by any force operating in the Indian Ocean is the tyranny of distance. More than 1,864 miles separate Perth and HMAS Stirling from Darwin, and over 3,266 miles separate Perth from Diego Garcia. As we shall see in a following section, Australia's current and projected diesel-electric submarine force would encounter considerable difficulties maintaining more than one or two submarines on station for long periods of time in the archipelagic waters close to its northern shores, let alone conducting extended high-intensity operations across the vast Indian Ocean. Australian analysts, such as Benjamin Schreer, have highlighted these limitations, commenting on the fact that "diesel-electric submarines are not suited for the Indian Ocean."⁹⁹ In the absence of a nuclear submarine fleet capable of operating over oceanic distances while remaining submerged, and in face of China's growing shore-based anti-access capabilities in the region, airpower may provide Australia with the most secure means to engage in protracted peripheral warfare in the Indian Ocean. Two platforms, by virtue of their endurance and maritime reconnaissance capabilities, appear particularly suited for long-range interdiction campaigns: P-8 Poseidon manned maritime patrol aircraft and MQ-4C Triton Broad Area Maritime Surveillance (BAMS) unmanned aircraft.

Earlier this year, Canberra expressed interest in acquiring up to seven MQ-4C Tritons. With the ability to cruise in the 330 to 360 knot regime for close to thirty hours, the Triton can cover several thousand nautical miles and has been described by some Australian defense analysts as having the potential to provide "mobile satellite" coverage over the Indian Ocean.¹⁰⁰ The Triton also has the ability to be retrofitted with close to 1,000 pounds of additional sensors and/or weapons, including bombs and, potentially, anti-ship cruise missiles, rendering it a suitable platform for extended maritime interdiction operations. While concerns linger in Australia over the potential ramifications of arming unmanned systems, the dual-use nature of platforms such as the Triton could reinforce, rather than erode, crisis stability by providing decision-makers in Canberra with a welcome degree of flexibility. The MQ-4C Tritons' ability to perform persistent ISR within a range of 2,000 nautical miles would complement Australia's growing number of P-8A maritime surveillance aircraft, which could then focus primarily on anti-surface and anti-submarine warfare. Working in tandem, the two platforms could be employed in extended anti-ship operations in the Indian Ocean.

⁹⁸ Indeed, judging from the Pentagon's latest annual report to Congress on China's military power, large portions of the Bay of the Bengal and of the Arabian Sea already fall under China's extended conventional threat radius. See United States Department of Defense, Annual Report to Congress in Military and Security Developments Involving the People's Republic of China 2013, p. 81, available at http://www.defense.gov/pubs/2013_china_report_final.pdf.

⁹⁹ Schreer, "Planning the Unthinkable War: 'AirSea Battle' and its Implications for Australia" (Canberra: Australian Strategic Policy Institute, 2013), p. 34.

¹⁰⁰ Rob Taylor, "Australia Seeks Triton Superdrones for Indian Ocean Overwatch," *Reuters*, June 25, 2013, available at <http://www.reuters.com/article/2013/06/25/us-australia-defence-triton-idUSBRE95O07Y20130625>.

CHAPTER 3: ALIGNING CAPABILITIES WITH OPERATIONAL REQUIREMENTS

Having outlined the various roles Australia could play to shore up regional deterrence, how should one view the ADF's current procurement plans? In this third and final section, the report examines three emerging areas of contradiction, where Australia's procurement plans seem to be at odds with its most pressing operational requirements. Despite the strategic aspirations outlined in both the 2009 and 2013 Defence White Papers, Australia's ability to conduct sustained high-intensity operations in its maritime neighborhood remains circumscribed by its naval and air strike systems' limited range, endurance, and payload capacity. Although Australia is acquiring some long-range ISR assets, notably Wedgetail and P-8 aircraft, the ADF lacks sufficient long-endurance maritime surveillance and strike assets, as well as refueling aircraft, capable of sustaining operations far from its shores. This situation will only worsen if Australia continues to over-invest in short-range fighter aircraft that may be of limited use in distant contingencies.¹⁰¹ While the RAAF's planned acquisitions will no doubt play a vital role, the nation is in dire need of a more range-balanced air capability. Australia's Collins-class submarines similarly lack the endurance and payload needed for distant patrols and have only a limited ability to remain on station near key chokepoints. Australia, moreover, relies on a small number of aging maritime platforms, many of which suffer from low levels of readiness. Finally, absent a greater budgetary effort, Australia's military capabilities will fail to meet the nation's strategic aspirations.

Australia's Submarine Debate

The acquisition of an expanded fleet of 12 conventional submarines forms a core component of Australia's planned future force structure. In a rapidly changing security environment, riddled with maritime disputes and marked by a surge in military acquisitions, submarines are increasingly viewed by small to medium-sized powers in Asia as cost-effective force multipliers.¹⁰² Australian strategic

Australia's ability to conduct sustained high-intensity operations in its maritime neighborhood remains circumscribed by its naval and air strike systems' limited range, endurance, and payload capacity.

¹⁰¹ This is true of both Australia's recent purchase of short-range fighter aircraft, including 24 F/A-18F *Super Hornets*, and its planned future acquisition of F-35 *Joint Strike Fighters*. See The International Institute for Strategic Studies, *The Military Balance 2011* (London, United Kingdom: The International Institute for Strategic Studies, 2011), pp. 221, 283.

¹⁰² Australian observers have drawn attention to the fact that "Australia, China, Japan, India, Indonesia, Singapore and South Korea are committed to increasing the size and capabilities of their existing submarine fleets, whereas Malaysia and Vietnam, which had not previously possessed ocean-going submarines, are acquiring them." See Sam Bateman, "Perils of the Deep: The Dangers of Submarine Proliferation in East Asia,"

writings frequently draw attention to the potentially destabilizing effects of submarine proliferation in the congested waterways of Southeast Asia, expressing concern over the vulnerability of Australia's sea lines of communication and offshore infrastructure to future undersea threats. In 2009, the Australian Defence White Paper called for a "substantially expanded submarine fleet of 12 boats in order to sustain a force at sea large enough in a crisis or conflict to be able to defend our approaches (including at considerable distance from Australia, if necessary), protect and support other ADF assets, and undertake certain strategic missions where the stealth and other operating characteristics of highly-capable advanced submarines would be crucial."¹⁰³ At the time, the choice stated was between an indigenously produced Australian submarine, which would either form an evolved version of the current Collins-class, a new "bespoke" variant, or a military off-the-shelf design, probably of European origin. In 2013, however, the latest Defence White Paper announced its decision to rule out further investigation of future submarine options based on off-the-shelf designs, in favor of focusing resources on an evolved Collins and new design options. Both parties have since reiterated their desire to have the future boats constructed indigenously in Adelaide, framing their decision as a long-term infrastructural and job-providing investment and as a means of acquiring a greater measure of self-reliance.

While diesel-electric submarines may present certain operational advantages in shallow littoral waters, these benefits are outweighed by the limitations they possess in terms of maximum speed, deep water stealth, sensor and payload capacity, and endurance.

There are several problems, however, tied to this decision. The first, and most important, being that several of the desired capability attributes for Australia's future submarine flotilla suggest the need for nuclear-powered rather than diesel-electric submarines. Immediately after the 2009 White Paper was issued, several observers, both in Australia and abroad, drew attention to the fact that given the enormous distances tied to the island continent's strategic geography and maritime operating environment, Australia might find itself trapped in a fruitless quest to build a "conventionally-powered nuclear submarine."¹⁰⁴ The 2009 White Paper laid out some of the specifications required for the nation's future submarine force, stating the following:

Long transits and potentially short-notice contingencies in our primary operational environment demand high levels of mobility and endurance in the Future Submarine. The boats need to be able to undertake prolonged covert patrols over the full distance of our strategic approaches and in operational areas. They require low signatures across all spectrums, including at higher speeds.¹⁰⁵

Commenting on these requirements, two analysts observed that "those are demands ideally suited to a nuclear submarine."¹⁰⁶ Other Australian analysts, such as Ross Babbage and Simon Cowan, have also strongly recommended that Australia pursue a nuclear-powered option.¹⁰⁷ Indeed, while diesel-electric

Asian Security, Vol.7, no.1, 2011, p.62, Abraham Denmark, "Below the Surface: The Implications of Asia's Submarine Arms Race," *World Politics Review Feature*, December 6, 2011, available at <http://www.worldpoliticsreview.com/articles/10850/below-the-surface-the-implications-of-asias-submarine-arms-race>.

¹⁰³ Australian Department of Defence, *White Paper: Defending Australia in the Asia Pacific Century: Force 2030* (Canberra, 2009), p. 64.

¹⁰⁴ Simon Cowan, *Future Submarine Project Should Raise Periscope for Another Look*, Centre for Independent Studies, October 2012.

¹⁰⁵ Australian Department of Defence, *White Paper: Defending Australia in the Asia Pacific Century: Force 2030* (Canberra, 2009), p. 70.

¹⁰⁶ Jack McCaffrie and Chris Rahman, "Australia's 2009 Defense White Paper: A Maritime Focus for Uncertain Times," *Naval War College Review*, Vol.63, No.1, 2010, p. 70.

¹⁰⁷ Ross Babbage has argued that, "a nuclear submarine would be perfect for Australia, with its almost infinite range and stealth," although he acknowledged that, "it would be fraught with political difficulties." Ross Babbage quoted in Brendan Nicholson, "Nuclear or Not, We'll Need Prefab Subs," *The Australian*, February 9, 2011, available at <http://www.theaustralian.com.au/news/features/nuclear-or-not-well-need-prefab-subs/story-e6frg6z6-1226002430804>.

submarines may present certain operational advantages in shallow littoral waters, these benefits are outweighed by the limitations they possess in terms of maximum speed, deep water stealth, sensor and payload capacity, and endurance. Endurance, in particular, is an increasingly important factor given the extended ranges at which Australian submarines may be required to operate in the future. Figure 4 provides a comparison of nuclear-powered and diesel-powered submarines' time on station at key locations. It shows that while diesel-electric submarines may prove more stealthy in shallow waters, they would take considerably longer to arrive on station, and remain on station for a far shorter amount of time. These limitations would grow along with the distance at which they are deployed, rendering it extremely challenging for Australian submarines to play any meaningful operational role in the northern Indian Ocean or South China Sea.

From a strategic perspective, the case for an Australian nuclear-powered submarine force is compelling, given their endurance, stealth at high speeds, and greater payloads.¹⁰⁸ The U.S. Virginia-class nuclear-powered fast attack submarine is more than twice the size of a Collins-class submarine and has almost unlimited range, as well as greater speed and stealth. It has a much larger weapons payload capacity, with total carriage capacity of 38 Mk-48 torpedoes or UGM-84 Harpoon anti-ship missiles.¹⁰⁹ The Virginia-class is also the only attack submarine in the world with the Mk-41 vertical launch system, which allows a greater number and variety of weapons to be deployed.¹¹⁰ A nuclear-powered submarine's endurance and payload, moreover, might allow Australia to opt for a smaller but more capable submarine force. For example, Australia might choose to replace its six existing conventional submarines with nuclear-powered submarines rather than attempting to procure 12 conventional submarines. At an estimated unit cost of \$2.4-2.6 billion (U.S. Dollars), nuclear-powered submarines might be acquired for slightly greater cost than indigenously produced conventional Collins-class replacements but provide far greater capability.¹¹¹ Since U.S. nuclear-powered submarines are in production, they could also enter service much sooner.¹¹² Finally, the Virginia-class' Vertical Launch Systems (VLS) would ensure the Australian submarine force's interoperability with current and future U.S. torpedoes and missiles.

Despite the attractiveness of nuclear-powered submarines, a number of thorny issues have kept the option off the table. The most salient barrier is that until now the Australian government has publicly ruled it out.¹¹³ Former Defence Minister Stephen Smith explained the decision not to pursue the nuclear-powered option by arguing that, "Australia does not have sufficient expertise or experience in the nuclear power industry or in nuclear generation to make that the basis of our submarine fleet."¹¹⁴

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¹⁰⁸ Although Andrew Davies has cautioned that domestic political considerations and support capabilities would prove difficult, he has noted that, "Given its strategic geography, the ideal submarine for Australia in many ways would be a nuclear attack boat (SSN)." Andrew Davies, "Strategic Ambitions: Australia's Future Submarine," *RUSI Defence Systems*, October 2008, p. 36, available at <http://www.rusi.org/downloads/assets/10davies.pdf>.

¹⁰⁹ See Ronald O'Rourke, "Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress," Congressional Research Service, April 2, 2012, pp. 2-3, 7 available at <http://www.fas.org/sgp/crs/weapons/RL32418.pdf>. The total weapons carriage could increase to 65 weapons with the addition of the Virginia Payload Module.

¹¹⁰ U.S. SSGNs are also equipped with vertical launch systems.

¹¹¹ See O'Rourke, "Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress," p. 3.

¹¹² Davies and Thomson, "Mind the Gap: Getting Serious About Submarines," pp. 15-16.

¹¹³ Australian Department of Defence, *White Paper: Defending Australia in the Asia Pacific Century: Force 2030* (Canberra, Australia: Commonwealth of Australia, 2009), p. 70.

¹¹⁴ Stephen Smith quoted in Jon Grevatt, "Australia Seeks US Collaboration on Submarine Programme," *Jane's Defence Weekly*, July 25, 2011. Smith has also noted, "when it comes to submarines, it's also very important that we pay very carefully [sic] attention to our weapons system, to communications system and to the

The 2013 White Paper confirmed that the previous Australian government had “ruled out consideration of a nuclear powered submarine to replace the Collins-class fleet.”¹¹⁵ It remains to be seen if the new Liberal National coalition Government will reconsider Australia’s position.

Australia currently struggles to man its six Collins-class submarines, raising questions over its ability to provide qualified manpower for twice that number.

Even if Australia were to reconsider, it is not clear that the United States would be willing to sell or even lease the ADF SSNs in the absence of a robust indigenous civilian nuclear infrastructure to ensure proper safety and maintenance of Australian reactors. The United States and Australia could, however, mitigate this shortfall by agreeing to overhaul and repair Australian nuclear submarines in U.S. support facilities. Joint basing at HMAS Stirling could also lessen some challenges and risks of Australia operating U.S.-designed nuclear submarines, if the base were already used to support U.S. SSNs and SSGNs. Nevertheless, without a civilian nuclear industry, Australia would be dependent on the United States for support and might even require partial U.S. crewing to operate its submarines’ nuclear reactors. While this might overcome U.S. reservations, it could still be politically unacceptable in Australia. Moreover, technology-sharing agreements could prove difficult to negotiate given the highly sensitive design of U.S. nuclear submarines.

Developing a non-nuclear submarine indigenously will also prove extremely onerous, both in terms of time and financial cost. Indeed, the first new submarine is not likely to be completed before 2033 at the earliest, creating a service gap between the Collins-class and the replacement submarines.¹¹⁶ The Australian Strategic Policy Institute has estimated that the Collins-class replacement submarines could take decades to field,¹¹⁷ and the total cost of acquiring them could be as high as 33 billion U.S. dollars.¹¹⁸ This is due primarily to the ADF’s unique requirements in terms of displacement and range, as well as the premium Australia would have to pay for indigenous production. There are likely to be substantial challenges associated with such an endeavor. Indeed, even with assistance Australia might lack the ability to produce advanced submarines at a reasonable cost and on a reliable schedule.¹¹⁹

Another critical limitation is that of manpower. Indeed, Australia currently struggles to man its six Collins-class submarines, raising questions over its ability to provide qualified manpower for twice that number.¹²⁰ These manpower challenges have been exacerbated by the fact that many submariners

interoperability of that with our alliance partner the United States.” Operating U.S. built systems would accomplish this task. Ali Moore, “Smith Discusses Defence Equipment: Interview with Stephen Smith,” *Australian Broadcasting Corporation*, July 27, 2011, available at <http://www.abc.net.au/lateline/content/2011/s3279611.htm>.

¹¹⁵ Australian Department of Defence, *Defence White Paper 2013* (Canberra, 2013), p. 82.

¹¹⁶ Julian Kerr, “Australia’s Future Sub ‘Facing 20-Year Incubation’,” *Jane’s Defence Weekly*, July 5, 2011.

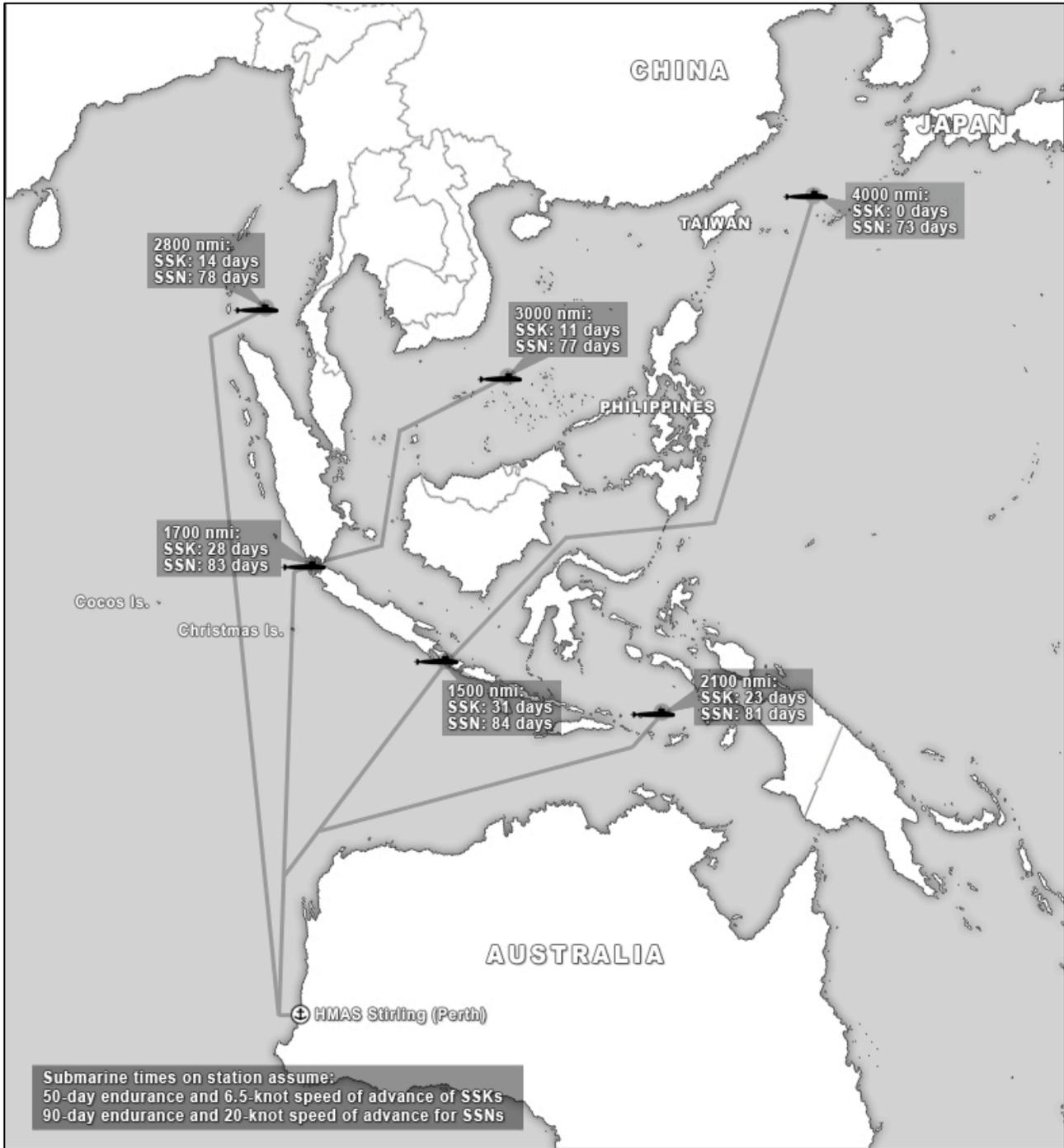
¹¹⁷ In 2011, Rear Admiral Rowan Moffitt, head of the Future Submarine project warned that the first of Australia’s 12 new boats would likely not enter service until 2033 at the earliest. In the face of China’s growing quantitative and qualitative improvement in its submarine fleet, this could leave Australia with a major gap in undersea capabilities. Julian Kerr, “Australia’s Future Sub ‘Facing 20-Year Incubation’,” *Jane’s Defence Weekly*, July 5, 2011.

¹¹⁸ Andrew Davies, “What Price the Future Submarines?” Australian Strategic Policy Institute, March 2, 2012, p. 2, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=332.

¹¹⁹ One British naval engineer reportedly called trying to produce such an advanced submarine without help from a nation with a proven submarine industry a “suicide mission.” See Brendan Nicholson, “Nuclear or Not, We’ll Need Prefab Subs,” *The Australian*, February 9, 2011. Andrew Davies argues that requirements for onboard sensors, UUVs, noise dampening, and air-independent propulsion could make the Future Submarine as challenging as the Collins project. He therefore estimates that each Future Submarine could cost AUS \$2-2.5 billion. At that price, more capable nuclear submarines might be no more expensive. See Andrew Davies, “Strategic Ambitions: Australia’s Future Submarine,” *RUSI Defence Systems*, October 2008, pp. 339-40.

¹²⁰ Cameron Stewart, “Joel Fitzgibbon admits ‘challenge’ manning Collins-class submarines,” *The Australian*, February 25, 2009, available at <http://www.theaustralian.com.au/news/nation/minister-admits-subs-serious-problem/story-e6frg6nf-111118958313>.

FIGURE 3: COMPARISON OF SUBMARINE TIME ON STATION AT CRITICAL CHOKEPOINTS



have a tendency to leave the force after a few years and join the private sector, where their specialized technical skills have proven in demand. A series of initiatives have been launched in order to augment the number of submariners in the RAN, but it remains uncertain whether these programs will prove successful. In addition to these manpower deficiencies, the Collins-class has suffered from a number of technical and operational flaws, ranging from faulty engines and generators to power limitations linked to the presence onboard of American sensors designed for nuclear-powered submarines.¹²¹ A 2011 Defence Ministry report severely criticized the operational shortcomings of Australia's current submarine fleet and made the observation that the fleet had only been seaworthy for about 32 percent of the July 2009-2010 fiscal year. Despite improvements in submarine readiness since that report, the seriousness of these issues raises concerns over Australia's planned future submarine fleet. These anxieties would be compounded were Canberra to opt for an evolved version of the Collins, given the boat's considerable set of preexisting flaws.¹²²

If Australia and the United States are unable to overcome the political and technical challenges associated with selling or leasing U.S. nuclear-powered submarines, a better solution may lie in acquiring Japanese Soryu-class submarines. The Soryu-class submarines lack the endurance of a nuclear-powered submarine, but their air-independent propulsion confers a submerged range several times greater than that of the Collins-class submarines. They lack the payload capacity and VLS of a nuclear-powered submarine but are larger than existing European AIP submarines—roughly the same size as Collins-class submarines.¹²³ Last year, the Japanese government relaxed its restrictions on the export of weapons under certain conditions, potentially opening the door to greater armaments cooperation with Australia. It may be premature to envisage Japan easing its export controls to the extent of directly providing submarines to Australia, but it may be possible for Canberra to leverage the Soryu-class's propulsion technology in a new indigenously developed replacement for the Collins-class. The potentially transformative nature of Australia-Japan cooperation in submarine technology has been recognized by members of Australia's strategic community, who have noted that it would “work to Australia's advantage” if the submarine propulsion testbed currently being developed by the Australian government was provided with “significant Japanese input.”¹²⁴

The RAN's chronic manpower shortages also suggest a need for greater automation and for a higher degree of investment in Unmanned Underwater Vehicles (UUVs). Australia's 2009 Defence White Paper indicated that future Australian submarines should be able to transport UUVs, and the RAN is reportedly closely monitoring developments in UUV technology. For a country such as Australia, surrounded by a complex and operationally challenging maritime environment, UUVs present certain highly useful attributes. With an endurance theoretically unfettered by crew limitations, unmanned submersibles could act as distributive force multipliers, clear minefields, and provide critical information in a manner less provocative than a manned platform.

¹²¹ Julian Kerr, “Figures show Royal Australian Navy Collins-class subs suffering operational problems,” *Jane's Defence Weekly*, February 2011.

¹²² Ross Babbage has warned that “these boats would also be ‘orphan’ submarines,” and that “Australia would need to carry the very substantial design authority and other overhead costs for the full life of the class.” See Ross Babbage, “Australia Needs Strategic Rethink on Submarines,” *The Diplomat*, May 20, 2013, available at <http://thediplomat.com/flashpoints-blog/2013/05/20/australia-needs-strategic-rethink-on-submarines/>.

¹²³ Hamish McDonald, “Seventy Years After Deadly Raid, Japanese Submarines May Partner with Australian Fleet,” *Sydney Morning Herald*, July 9, 2012, p. 1.

¹²⁴ Andrew Davies, Hayley Channer and Peter Jennings, “Something new under the Rising Sun: expanding Australia-Japan defence cooperation,” *ASPI Policy Brief*, 3 June, 2013, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=360&pubtype=-1.

In addition to these qualities, UUVs can act covertly, due to their low acoustic signatures, relative affordability, and their ability to venture into shallow or very deep waters. Several limitations currently limit the adequacy of UUVs for large-scale undersea military requirements such as their slow speed, limited power (which places constraints on their endurance), and the inherent difficulties tied to effective communications, command and control with a submerged system. In the future, however, as UUV propulsion technology and autonomous mission management improve, unmanned assets will play an increasingly important role in shaping the undersea battlespace. For a middle power such as Australia, with a small but technically qualified population, deeper investment in UUV technology to create a mixed manned-unmanned undersea fleet could provide Canberra with a future means of punching above its weight in the maritime domain.

Finally, Australia could also substantially increase its submarines' on-station availability by fielding a submarine tender, for which HMAS Stirling might be a suitable homeport. At present, the U.S. Navy has only two submarine tenders in service, one based at Guam and the other at Diego Garcia. If Australia were to field a tender, it would represent a major contribution to the alliance and also serve as a force multiplier for Australia's own submarine force. The possession of a tender would be even more valuable for Australia's own diesel-electric Collins-class submarines (and potentially their successors) by mitigating some of the aforementioned challenges linked to their lack of endurance. An Australian tender could provide logistics support to both Australian and U.S. submarines, increasing their availability near chokepoints in the Eastern Indian Ocean. If the Cocos Islands lagoon were partially dredged to accommodate tenders and submarines, it might be a suitable contingency site for resupplying and reloading. A tender would operate as a supply and weapons conveyor to atolls and small harbors north of Australia, thereby reducing the number of long submarine transits back to HMAS Stirling or other distant ports.

An Australian tender could provide logistics support to both Australian and U.S. submarines.

Towards a More Range-Balanced Air Force

Undertaking peripheral operations would also put a premium on long-range surveillance and strike aircraft. Australia is acquiring P-8A Poseidon maritime patrol aircraft to replace its aging P-3 Orions and has six long-range Wedgetail airborne early warning and control (AEW&C) aircraft with Multirole Electronically Scanned Array radars capable of detecting and locating targets hundreds of miles away.¹²⁵ As Andrew Davies has observed, the ADF recognizes Australia's need to improve its persistent, wide-area ocean surveillance capabilities: "The ability to control our air and sea approaches has been a constant of Australian government strategic thinking for decades Defence will therefore always be required to maintain an ocean surveillance capability, as well as the ability to respond where necessary to interdict aircraft or ships in our approaches."¹²⁶ In this regard, high-endurance UAVs could fulfill a vital role by serving as multi-mission platforms, not only carrying synthetic aperture radar, infrared, and electro-optical sensors, but also potentially delivering maritime strike munitions or serving as a line-of-sight communications node for other aircraft in the event satellite communications are jammed.

¹²⁵ See Australian Department of Defence, *White Paper: Defending Australia in the Asia Pacific Century: Force 2030* (Canberra, Australia: Commonwealth of Australia, 2009), pp. 79-80; also see Royal Australian Air Force, "AEW&C Wedgetail Specifications," Government of Australia, available at http://www.airforce.gov.au/Technology/Aircraft/AEWC_Wedgetail/?RAAF-yFLAkgbpvuhRf7dG5J3kHi1Q4caywtso.

¹²⁶ Andrew Davies, "Putting the 'National' into National Security: Australia's Maritime Surveillance Capability," Australian Strategic Policy Institute, July 15, 2010, p. 2, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=264.

There is therefore an urgent need for Australia to consider rebalancing its portfolio of short- and long-range surveillance and strike systems and to acquire additional tankers.

Australia's real challenges in terms of strike range lie with its choice of fighter aircraft. Indeed, in contrast to the longer-range surveillance aircraft Australia is acquiring or is likely to pursue, Australia has opted for shorter-range strike aircraft systems. The RAAF retired its F-111 fighter-bombers in 2010, and with the exception of its P-8A Poseidon, Australia lacks any sort of long- or even medium-range strike aircraft. Australia's future air program is dominated by fourth and fifth generation fighters, which simply lack the range and endurance to conduct effective long-range strikes. Without aerial refueling, the combat radius of F/A-18E/Fs and F-35As would be limited to 390 miles and 584 miles, respectively (assuming no external fuel tanks), both of which would be insufficient to conduct interdiction operations near the straits. Even with aerial refueling, Australia's fighter force would still have difficulty remaining on station for any significant duration because the RAAF plans only call for a single refueling squadron with five KC-30 tankers, not nearly enough to meet Australia's needs.¹²⁷ Carlo Kopp estimates, for instance, that five KC-30s will barely form 25 percent of the tanker capacity needed to support the RAAF fighter fleet.¹²⁸ This means that while the KC-30As have both drogue and boom systems capable of refueling fighters and heavier aircraft like the Wedgetails, P-8s, and C-17s, there would simply not be a sufficient number of them to support high-tempo operations. Consequently, absent deployment to forward bases in other countries, Australia would be unable to capitalize on the reach of its long-range surveillance systems. In all likelihood, this would place Australia in a high state of dependency on U.S. tankers, which would likely already be in heavy demand by American forces. There is therefore an urgent need for Australia to consider rebalancing its portfolio of short- and long-range surveillance and strike systems and to acquire additional tankers.

It would be prudent to accelerate the fielding of HALE UAVs for maritime surveillance to complement Australia's P-8 force, with the aforementioned option of configuring them for maritime interdiction missions as well as surveillance operations. Given that RAAF aircraft are unlikely to conduct operations in highly contested airspace against dense thickets of sophisticated air defense systems, Australia could trade some of its shorter-range aircraft's stealth characteristics for greater endurance and payload.

The head of the Royal Australian Air Force, Air Marshal Geoff Brown, recently reemphasized the importance for Australia of equipping its future strike aircraft with anti-ship missiles.¹²⁹ Australia should consider the stealthy U.S. Long-Range Anti-Ship Missile (LRASM) now in development. The LRASM's range is over three times greater than current Harpoon AGM/RGM-84 anti-ship missiles, and it will have far greater ability to evade advanced air defense radar systems while operating in denied communications environments. It would also be ideal for conducting maritime strikes against the PLA's best air defense destroyers given its range and stealth and could be launched from a variety of long-endurance, large-payload aircraft.

¹²⁷ The International Institute of Strategic Studies, *The Military Balance 2011* (London, United Kingdom: The International Institute of Strategic Studies, 2011), p. 225.

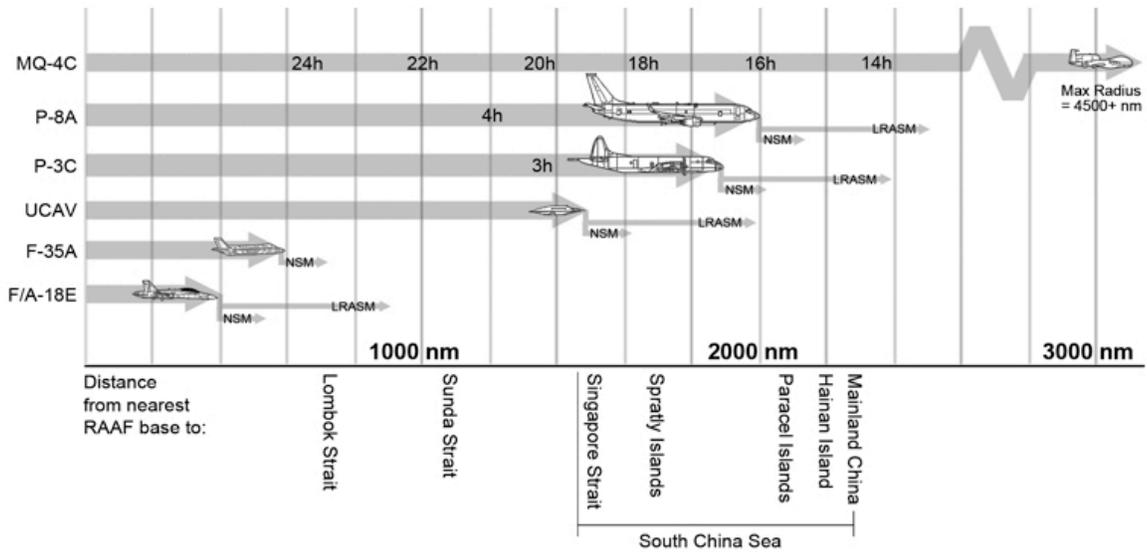
¹²⁸ Carlo Kopp, "Airpower projection in Australia," *DefenceToday Feature Report*, March 2011, available at <http://www.ausairpower.net/SP/DT-RAAF-Air-Power-March-2011.pdf>.

¹²⁹ Robert Wall, "Boeing Maritime Jet Gains Favor in Australia," *Bloomberg News*, July 17, 2013, available at <http://www.businessweek.com/news/2013-07-17/boeing-maritime-jet-gains-favor-in-australia-paring-drone-need>.

FIGURE 4: COMBAT RADII OF RAAF AIRCRAFT



Combat Radii of Current and Prospective RAAF Aircraft



As Washington considers retiring long-range legacy platforms such as its remaining B-1s, it might prove judicious to transfer a portion of them to its ally in Canberra. The B-1 may not possess the stealth characteristics required for penetrating missions, but this limitation would not necessarily constitute as much of a liability for the RAAF, which is not likely to operate within highly contested air environments. In addition to its high level of endurance, the B-1's three bomb bays can carry a wide variety of weaponry, ranging from sea mines to up to 24 Joint-Air-to-Surface Standoff Missiles and precision JDAMs. Some have argued that the B-1's recent history of close-air support for counter-insurgency operations could be applied to the Pacific maritime domain, with the B-1 using its integrated Sniper Advanced Targeting Pod to target not only pick-up trucks speeding along dust roads in places such as Afghanistan, but also small fast attack craft lurking along crowded Asian littorals.¹³⁰ The B-1s could also be retrofitted with LRASMs, making them ideal platforms for maritime strike operations. They could also carry AIM-120 AMRAAMs to conduct defensive counter-air missions. Executing anti-surface warfare and defensive counter-air combat air patrols would free up U.S. strike aircraft for other missions. While high operating costs would no doubt prevent Australia from fielding more than one or two squadrons, some of these costs could be mitigated by cannibalizing the U.S.'s remaining B-1s for spare parts.

If Australia were to acquire B-1s, it would make sense to base them somewhere along its northwestern coast, possibly at Tindal or Learmonth. Again, doing so would require improvements to the "bare bases" including lengthening runways, expanding rampspace, and increasing fuel storage and pumping capacity – investments that would also make those bases more attractive as shared facilities from an American perspective. The mere possession of such a long-range strike capability could help compensate for the loss of long-range air strike capability incurred by Canberra's decision to phase out the F-111. It would also send out a powerful signal to potential adversaries and strengthen Australia's conventional deterrent.¹³¹

The Need for Stronger Budgetary Support

Time and time again, financial means have failed to match strategic ends.

Finally, none of these recommendations can be put into practice without a sustained budgetary effort on the part of the Australian government. Time and time again, financial means have failed to match strategic ends.

For example, in 1987 the Australian White Paper called for an allocation of 2.6 to 2.9 percent of GDP to undergird its proposed reforms. In reality, however, figures reveal that the defense budget actually declined to less than 2 percent in the following years. Many of the reforms never took place, and instead of expanding the Australian surface fleet to 16 or 17 ships as planned, the navy simply stagnated at 12 ships.¹³²

¹³⁰ Joe Pappalardo, "B-1 Pilots Turn Their Bombsights to the Pacific," *Popular Mechanics*, April 9, 2012, available at <http://www.popularmechanics.com/technology/military/planes-uavs/b-1-pilots-turn-their-bombsights-to-the-pacific-7962209>.

¹³¹ According to U.S. Air Force sources, the "ownership cost per flying hour" for the B-1 is \$62,000, including all operations and sustainment costs as well as fuel. The main cost driver is maintenance. A typical seven-hour training sortie roughly costs \$430,000. Assuming a B-1 flies at least once weekly, the annual sustainment cost would be \$22.5M. A twelve-aircraft squadron for a year would then cost \$270M, which is roughly one percent of Australia's defense budget.

¹³² Cameron Stuart, "Military Ambitions," *The Australian*, May 2, 2009, available at <http://www.theaustralian.com.au/national-affairs/defence/military-ambitions/story-e6frg8yo-1225706120821>.

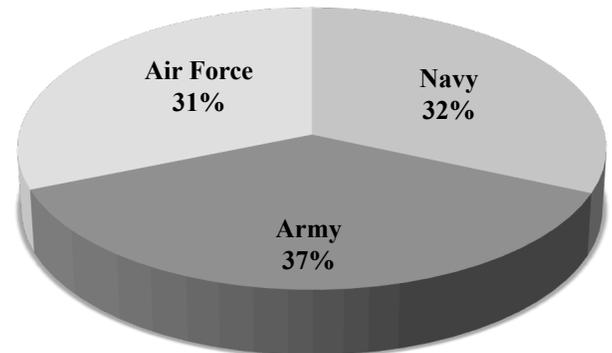
The 2009 White Paper was similarly ambitious in scope, calling for a 3 percent increase in real growth of the defense budget until 2018 and then of 2.2 percent until 2020 in order to finance the 20-year plan. Unfortunately, these promises remained unfulfilled, notes a recent report by the Australian Strategic Policy Institute, and in the 48 months between the release of the 2009 and 2013 White Paper, close to \$18 billion U.S. dollars of funding was cut or deferred.¹³³ This has triggered concerns in Washington over Australia's level of defense spending and its future force design; this policy risks engendering discord within the alliance. On a visit to Canberra in July 2012, Admiral Samuel Locklear, Commander of the U.S. Pacific Command, has warned that "defense is not something you can turn on and off with a switch from year to year based on how bad economies are, because you make investments in the military that are long-term investments that require a lot of planning." Locklear added, "I would hope in the security environment that we are in that there is a long-term view of defense planning that has the proper level of resources behind it."¹³⁴ On average, Australia's defense budget has flickered around 1.8 percent since 2001, and last year the budget was slashed to 1.59 percent, its lowest level since the 1930s.¹³⁵

The 2013 White Paper renewed a pledge to increase the nation's defense budget. Mark Thompson notes that on current plans, the defense budget will increase by 3.6 percent over the next four years. It remains to be seen, however, whether Australia will fulfill this commitment.¹³⁶ Unlike many of the United States' European allies, Australia's economy remains robust and continues to expand at a reliable rate, despite having suffered recently from the contraction in mining-sourced growth. The International Monetary Fund, in its April 2013 World Economic Outlook, forecasted an annual average growth of 3.1 percent for Australia between 2013 and 2018.¹³⁷ There would seem, therefore, to be no structural obstacles to raising defense expenditure.

Not only will the Australian government need to ensure sufficient funding, a supplementary effort will also need to be undertaken in order to rebalance inter-service funding. Although this may induce bureaucratic friction in the short term, it is a necessary measure in order to better align Australia's future force structure with its maritime operating environment.

Australia's ground forces, aside from its special operations forces, are likely to see fewer deployments in the coming years as troops withdraw from Afghanistan. Absent additional funding, downsizing the army may be necessary in order to invest more in the RAAF and RAN. More armored and

FIGURE 5: ADF SPENDING (BY SERVICE)



Percentages derived from The International Institute of Strategic Studies, *The Military Balance 2012* (London, United Kingdom: The International Institute of Strategic Studies, 2012), p. 226.

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¹³³ Mark Thomson, "The Cost of Defence: ASPI Defence Budget Brief 2013-2014" (Canberra: Australian Strategic Policy Institute, 2013), available at <http://www.aspi.org.au/publications/publicationlist.aspx?pubtype=3>.

¹³⁴ Daniel Flitton, "US Admiral Queries Australian Defence Spending," *Canberra Times*, July 14, 2012, p. 8.

¹³⁵ Rory Medcalf, "Breaking Down Australia's Defense White Paper 2013," *The Diplomat*, May 7, 2013, available at <http://thediplomat.com/2013/05/07/breaking-down-australias-defense-white-paper-2013/>.

¹³⁶ Mark Thomson and Andrew Davies make the observation that "there is probably not enough planned funding to maintain, let alone expand, the ADF." See "Agenda for Change: Strategic Choices for the Next Government" (Canberra: Australian Strategic Policy Institute, 2013), p. 19, available at http://www.aspi.org.au/publications/publication_details.aspx?ContentID=372.

¹³⁷ See "IMF reaffirms resilient economic outlook for Australia, Australian Trade Commission Data Alert, May 3, 2013, available at www.austrade.gov.au.

mechanized forces may need to be demobilized or shifted into reserve units, providing a surge capability if needed but lowering the steady-state cost per soldier. In addition, Australia might opt to extend the service lives of the ground systems used in Iraq and Afghanistan rather than immediately purchasing replacement vehicles.¹³⁸ The decision to move towards a more “marinized” Army by assigning the Royal Australian Regiment to a dedicated amphibious battle group has a compelling strategic rationale.¹³⁹ It may not prove wise, however, to continue to disburse large amounts of funds on expensive LHDs, which, due to their growing vulnerability to anti-ship missiles, run the risk of becoming “wasting assets,” only suitable for HADR missions and soft power projection, missions for which cheaper alternatives for sea transport similar to the U.S. Joint High-Speed Vessel are available.¹⁴⁰

¹³⁸ Figures based on 2012-2013 Portfolio Budget Statement, available at: http://www.defence.gov.au/budget/12-13/pbs/2012-2013_Defence_PBS_complete.pdf.

¹³⁹ Albert Palazzo, “Towards a Marine Force,” *Security Challenges*, Vol. 7, No.2 (Winter 2011), pp. 41-45.

¹⁴⁰ Andrew F. Krepinevich Jr., “The Pentagon’s Wasting Assets: The Eroding Foundations of American Power,” *Foreign Affairs*, July/August 2009.

CONCLUSION: FROM THE TYRANNY OF DISTANCE TO THE CHALLENGE OF PROXIMITY

In his magisterial study of Australian history, Geoffrey Blainey famously described how the young nation had been defined since its very inception by a powerful sense of isolation from the bustle and flow of global affairs.¹⁴¹ As the United States and Australia venture together into an Indo-Pacific century, Canberra no longer faces such a challenge. Rather than subject to “the tyranny of distance”, Australia is confronted with the reality of its newfound proximity to the world’s epicenter of geopolitical activity. Framed by two oceans, Australia’s recognition of its growing strategic centrality has been accompanied by a renewed emphasis on maritime power and by a desire to strengthen its capacity to shape developments within its own region.

As the United States rebalances towards Asia, its alliance with Australia has acquired a renewed importance. Washington and Canberra’s shared interests in the region has produced a “strategic overlap,” which has had a major impact on U.S.-Australia security ties. Australia’s tight enmeshment within the alliance and its accretion of high-end military capabilities are increasingly perceived as being in both nations’ long-term interests. By deepening its defense partnership with the United States, Australia is both strengthening its indigenous defense capabilities and reinforcing conventional deterrence. As a result, archetypical Australian strategic debates over the merits of the Australia-U.S. alliance seem increasingly outdated. Indeed, while Australia’s strategic community is still characterized by a rich diversity of opinions and schools of thought, contemporary discussions are increasingly pragmatic and center on Australia’s future role in maintaining a stable conventional military balance in the region.

Departing from such an observation, this report has offered a wide range of recommendations, which are grounded in a detailed analysis of Australia’s current and projected force structure. These recommendations are also informed by the missions likely to be of the most value to the U.S.-Australia military alliance, and at the core of future ADF operations. Each operational role focuses on one particular area of strategic priority, but all should be construed as complementary, rather than as mutually exclusive.

While approving of the general direction of Australian military strategy, the report has also flagged certain areas of concern. Located within a region characterized by vast oceans and great distances,

¹⁴¹ Geoffrey Blainey, *The Tyranny of Distance: How Distance Shaped Australia’s History* (Sydney: Macmillan, 1968).

Australia's new government will need to place a much greater emphasis on range and endurance when considering future platforms. Absent a rebalancing towards more long-range air assets and tanker aircraft, the RAAF may struggle to fulfill Australia's future operational requirements. Similarly, Australia's planned submarine fleet may not only prove prohibitively expensive, but also dangerously inadequate for prolonged and operationally challenging missions in remote Asian waters.

Last but not least, it is time for the nation's political leaders to match their professed military aspirations with more consistent levels of budgetary support. After all, in the absence of proper funding, even the best laid of plans can come to naught.



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