The Logic of Interoperability: Australia’s Acquisition of the F-35 Joint Strike Fighter

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Abstract
The 2009 Defence White Paper confirmed that the Australian Government plans to acquire up to 100 F-35 Joint Strike Fighters over the coming decade. The decision was based upon many different calculations, not least of which were cost and capability. However, a significant and less discussed motivation was the advantage of interoperability with the United States military. This paper unpacks the logic of interoperability and argues that it is based upon two seemingly contradictory currents in Australian strategic thought: self-reliance and dependency. It submits that this conceptualization of interoperability is now outdated and should be shifted towards greater political and strategic cooperation.

Introduction
Since 1918, Australia has joined the United States in every one of its major conflicts: World War II, Korea, Vietnam, Persian Gulf, Somalia, Afghanistan and Iraq. Australia’s enduring commitment to the alliance has led to a renewed focus on joint operations. The new maxim within Australian defence circles is “interoperability”. Interoperability with the United States’ military has become the keystone phrase for many issues relating to Australia’s procurement, strategy and doctrine. Yet, the other phrase used equally as often is “self-reliance”. Australian strategic planners simultaneously view the United States as an indispensable and unreliable ally. Although Australia has always been at America’s side, Australia was disappointed by the United States’ unenthusiastic response to the 1999 East Timor Crisis. As such, the underlining logic of interoperability is to hedge between dependence and self-reliance.

Firmly resting within these mixed strategic motives is the F-35 JSF program. The Australian Government’s decision to acquire up to 100 F-35 Joint Strike Fighters is not
only Australia’s most expensive and complicated military purchase in its history, but also its biggest step yet towards interoperability. Historically, the United States has been Australia’s country of choice when searching for military equipment. Indeed, bar one exception, since 1960, every fighter purchased for the Royal Australian Air Force (RAAF) has been of American origin.¹ Yet, the F-35 JSF is the first that is being purchased with the stated intention to improve interoperability with the United States.

Although within Australian Defence circles, the concept of interoperability has primarily come to be associated with the operational level of analysis, there is a competing view of interoperability. This second definition concentrates on politico-strategic integration. The latter approach aims to mesh the world-views, objectives and national interests of close allies. In turn, “politico-strategic interoperability” aims to promote a greater division of labour between the nations in regards to procurement, training and deployments. In a break from the “operational interoperability” conceptualisation, “politico-strategic interoperability” results in a narrowing of the spectrum of contingencies that a nation prepares to respond in the knowledge that their partner is prepared to respond to the remaining contingencies.

This article submits that a more effective United States-Australian alliance should attempt to shift the logic of interoperability from the operational to the politico-strategic level. Taking the F-35 as an example, this paper argues that Australia, if confronted by a major regional power, will never be fully self-reliant. Furthermore, Australia’s contribution of airpower to an American led-coalition involved in a major regional conflict would be, at best, token and strategically inconsequential. Hence, instead of

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¹ The exception was the Dassault Mirage IIIE, which was of French origin. Australia acquired this airframe in 1964 in a decision that had more to do with the F-4 Phantom II’s late entry into service than with intentionally breaking the mould.
pursuing high-end capabilities, such as the JSF, Australia should dedicate itself to low and mid-range conflicts. This would ease the United States’ burden of regional peacekeeping, internal security assistance and stabilization operations in the Asia-Pacific region. In exchange, Australia would invite a greater American presence in Australia that might include naval and air assets. This approach would exploit each country’s competitive advantages and be the best means of advancing the alliance-partnership into the 21st Century. For this to occur, however, the United States would have to take dramatic steps towards allaying Australia’s historically ingrained fears of abandonment.

This article will discuss the logic of interoperability as expressed by Australia’s decision to acquire the F-35 JSF. The article is divided into three sections. Section One provides an historical overview of Australia strategic thinking and how this has led to the integration of interoperability as keystone concept. Section Two focuses on the historical development of current Australian strategic thinking. It explains that the two persisting underpinnings of its defence posture have been self-reliance and dependency on a security guarantor (i.e. Britain and then the United States) and interoperability is a means of balancing these two currents. Section Three follows Australia’s F-35 procurement process and argues that this is a case where operational interoperability is probably suboptimal for both Australia and the United States. Section Four will outline the alternative to operational interoperability, namely the politico-strategic variety. The article concludes by reinitiating the advantages that politico-strategic interoperability represents for the US-Australian military partnership over the current operational conceptualisation.

1. The Concept of Interoperability: Two Competing Definitions

The origins of interoperability as a strategic concept lie in North America and Europe, not in Australasia. Following the end of the Cold War, interoperability was at the centre of debates on the future of NATO. Over the course of the 1990s, it was decided that the
focus of NATO should be shifted from territorial defence to multinational expeditionary missions, to better respond to crises such as Bosnia, Kosovo, and later in Afghanistan and Libya. NATO would rely heavily on technology, mobility and speed. This vision painted a portrait of the alliance partners beginning to act outside of Europe, quickly confronting threats when and where they arise. However, this new conceptualisation of the alliance posed a new set of challenges. It was quickly realised that the capabilities gap between the United States and its allies was considerable. Whereas the United States had a long history of developing capabilities for mobile operations, the European militaries continued to lack full interoperability with the United States and could only conduct very limited joint or independent missions abroad. Nevertheless, the concept of interoperability became the guiding principle around which the future of NATO would be based.

Within the context of post-Cold War American-European relations, interoperability became – for the most part – associated with combat systems and technology. The Joint Staff’s definition articulately expresses this approach to interoperability, viewing it as:

The ability of systems, units, or forces to provide services to and accept services from other systems, units, or forces, and to use the services so exchanged to enable them to operate effectively together.\(^2\)

In large part, this definition placed special emphasis on standardisation in – as the military would put it – the Command, Control, Communication, Computers and Intelligence (C4I) between allies. It also extended out to include knowledge of each other’s operational and tactical doctrines and standardisation in weapons and other expendable equipment.

From Europe, the concept of interoperability began to spread to Asia. In the Asian context, however, a subtle, but important, change took place. Instead of focusing on

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The use of “interoperability” came to be associated with shared political views and the ability of allies to respond to different sets of challenges. As Myron Hura pointed out, at “the highest level, interoperability issues centre on harmonizing the world views, strategies, doctrines, and force structures of the United States and its allies.”

The underlining argument of the 2000 “Armitage Report” was that the United States should rely more on Japan. The argument was to make Japan a “more equal partner” through making “priority availability of U.S. defense technology...[and] a division of labor – apportioning analytical tasks according to the comparative advantages of each partner.” In Japan’s case, it was agreed that Tokyo would be responsible for securing its own air and sea-lanes out to 1,000 miles; while the American forces would concentrate its efforts further afield. This level of military cooperation was only achievable because of the extremely close political relationship and the trust each alliance partner placed in the other. In relation to Japan, interoperability meant substantial political and strategic integration.

Initially, the incoming Bush Administration whose objective was to pursue a more “humble” foreign policy looked favourably upon “polito-strategic interoperability”. The terrorist attacks of September 11 2001, however, dramatically threw the weight of option towards the earlier operational approach. Polito-strategic interoperability vanished from Washington’s strategic outlook as deep insecurity resulted in a push for a

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full spectrum of capabilities and the option of taking decisive action against all threats whenever and wherever they arise.

Canberra has overwhelmingly viewed interoperability with the United States on the operational side; but also with a slight nod to shared political objectives and even cultural values. In 2006, the Australian Government’s Joint Standing Committee on Foreign Affairs, Defence and Trade stated that:

Interoperability with US forces and the ability to contribute to multinational coalitions are central themes in Australia’s policies, acquisition programs and training plans. Australia’s effective, high-end contributions to US-led coalition operations in Afghanistan and Iraq demonstrate the high degree of interoperability and the shared values that characterise the Australia-US relationship.\(^7\)

The latest push for improving interoperability in Canberra gained momentum following the September 11, 2001 terrorist attacks. It became clear to Australia that it would once again be required to operate jointly with United States forces on far-flung expeditionary operations, not least of which was Afghanistan. In October 2002, as part of an Australia-US Ministerial Meeting, the delegates agreed to a “review of Australia-US interoperability”.\(^8\) This meeting witnessed a melding of the minds as both Washington and Canberra were squarely focussed on promoting “operational interoperability”. A few areas were singled out for improvement, including information exchange; harmonisation of some capability development; and cooperative science and technology experimentation. All these areas are advanced by Australia’s acquisition of American high-end platforms, including its participation in the development of the Joint Strike Fighter.

\(^7\) Joint Standing Committee on Foreign Affairs, Defence and Trade, *Inquiry into Australia’s Defence Relations with the United States*, report no. 130, (Canberra: Australian Government, 2006), ch. 3, p. 31.

\(^8\) Joint Standing Committee on Foreign Affairs, Defence and Trade, *Inquiry into Australia’s Defence Relations with the United States*, report no. 130, (Canberra: Australian Government, 2006), ch. 3, p. 32.
2. Australian Defence Policy and Interoperability

The Second World War had a dramatic and enduring impact on the minds of Australian defence planners. For generations of Australian policymakers, the lessons of the Second World War have been two fold. First, that Australia was vulnerable to invasion from the north. A large country with a relatively small population, Australia felt exposed to its significantly more populous Asian neighbours. As a consequence, it required the continued support from a security guarantor. That is, a powerful friend which would come to its aid in a crisis. The second lesson was that security guarantors cannot always be relied upon. This was taught to Australia by Britain’s abandonment of its far-flung and vulnerable colonies to concentrate its efforts on the defence of the British Isles. As the forces of Imperial Japan swept south through East and Southeast Asia, Australia scrambled to adjust as British forces focussed on defeating Nazi Germany in Europe. These two contending lessons have produced an enduring security anxiety, not only within the circles of defence planners, but also the wider Australian community.9

Since the Second World War, this tension between self-reliance and the dependency has been at the heart of Australian defence planning. A commitment to both self-reliance and the US alliance has been explicitly cited in every major defence review since 1972.10 In addition to being a friction, balancing dependency and self-reliance is also a paradox. The paradox being that without maintaining a policy of self-reliance, Australia fears that the US commitment to the alliance may wane.11 Washington may begin to resent Canberra’s free riding behaviour. Viewed through this prism, Australia’s acquisition of expensive, high-end capabilities is, in part, about appearing to be a responsible junior

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partner. In Canberra’s strategic outlook, self-reliance and dependency merge to become different sides of the same coin.

*Generals are always preparing to fight the last war*

Although the Second World War gave birth to Australia’s enduring defence traditions, it was the East Timor Crisis that has shaped much of its recent strategic policymaking. The importance of East Timor on Australian strategic thinking cannot be understated. Its significance sprung from two sources. It was the first major international military operation that Australia led in its history. Second, East Timor reinforced many of Australia’s pre-existing beliefs about what it can, and cannot, expect from its major allies. These two threads have intertwined to influence every major Australian defence statement, defence acquisition and doctrinal development since 1999.

Between 1975 and September 1999, Australia maintained a constant policy of non-interference in East Timor. However, this position became untenable when, following the 30 August 1999 referendum on independence from Indonesia, militias swept across the territory inflicting widespread and seemingly random violence. The Australian Government had been quietly preparing for the possibility of an intervention since the referendum had been called and urgently begun to put those plans into motion. In those plans, it was clear that Canberra had assumed that Washington would support any Australian led intervention with American ground troops.

Washington, however, was not willing to commit its own troops to the mission. It maintained that the region was not critical to its national security. The US Secretary of Defence William Cohen dismissively ruled out American troops, stating that: “it is not an area that we are prepared to commit forces.”\(^\text{12}\) The US National Security Advisor Sandy Berger echoed this sentiment, commenting that: “because we bombed Kosovo

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doesn’t mean we should bomb Dili.”

Although the United States did eventually provide political cover for the mission and some heavy lift capability, it was not prepared to provide ground troops.

The United States’ decision not to commit ground forces to the East Timor Crisis was meet with shock and disappointment in Canberra. Australian Defence Minister John Moore recalled his conversation with US Secretary of Defense, Bill Cohen:

I Spoke to Bill Cohen, who I knew before...The answer from Cohen was ‘it is your baby’. I said that you need to help – it’s part of ANZUS. But he said it is all yours. I asked what he would do, and he said he’ll have to think about it. He said they would give us intelligence, and he would get back to us. But he said precisely, ‘no troops’.

The Australian Government felt betrayed. The Australian Prime Minister John Howard lashed out saying: “The Americans have broken their military ties [with Indonesia]. I understand that those military ties are worth $700,000 a year. I’d rather them publicly offer some troops and keep military ties, quite frankly.” The Foreign Minister Alexander Downer continued the hurt tone: “Here we aren’t talking about a peace enforcement exercise. We are not talking about going to war with Indonesia. We are talking about a peacekeeping exercise, and we would like to feel that the United States did have some peacekeepers in that exercise, and I’m confident that the United States will have some peacekeepers in that exercise.”

The Opposition Leader, Kim Beazley, supported the Howard Government’s position saying: “There is growing frustration in this country that we should find ourselves so alone in what is basically a human rights issue on our doorstep.”

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The general feeling of abandonment went far beyond Canberra. The political leadership was channelling wider public opinion. An editorial in a leading Australian newspaper captured the feeling of the wider community at the time:

Much has been made by our politicians of the value of the US-Australia alliance and its importance to our security. However, the first time we have asked for American assistance it has been found wanting.

This is in stark contrast with the support we gave it in the Vietnam conflict...and, more recently, our ready response to its request for participation in the Gulf War.

One must now entertain some doubts as to how readily assistance would be forthcoming from the US if Australia was under external threat.\(^{18}\)

The United States did eventually make some important contributions to the mission. It sent unequivocal signals to Indonesia that any interference with the international intervention would result in it weighing into the conflict. In addition to political cover, Washington also supplied key capabilities, such as some strategic sealift and communications. Nevertheless, there remains a widely held view in Australia that the United States largely washed its hands of the mission. That, like the British discovered in the Falkland Islands War, Washington does not always provide the level of assistance that close allies expect. Australia in East Timor and Britain in the Falklands Islands have both learnt that the United States is at once both an indispensable and unreliable ally. For Australia, the logic of interoperability is nestled in these historical lessons.

Every five years the Australian Department of Defence release a *White Paper*. The 2009 *White Paper* reiterated Australia’s commitment to self-reliance and the US alliance. These political documents spell out, in broad terms, the Australian Government’s perceived

\(^{18}\) Editorial, “The US Ties That Don’t Bind,” *The Sydney Morning Herald*, 10 September 1999. Former Deputy Prime Minister Tim Fischer also captured this widely held belief when he maintained that: “the truth was that Washington could not have been weaker in its initial response to Australia’s request for assistance with East Timor during September 1999.” John E. Angevine, *Mind the Capabilities Gap: How the Quest for High-End Capabilities Leaves the Australian Defence Forece Vulnerable to Mission Failure*, (Washington, DC: Brookings, 2011), 17.
key security challenges and its preferred responses. It outlined that Australia’s “most effective strategic posture continues to be a policy of self-reliance in the direct defence of Australia, as well as an ability to do more when required, consistent with our strategic interests and within the limits of our resources.” On the other hand, it continued by arguing that: “Defence self-reliance means that Australia would only expect the United States to come to our aid in circumstances where we were under threat from a major power whose military capabilities were simply beyond our capacity to resist.” That is, it expects that it will require the United States’ assistance in a conflict with a major regional power, such as China, India or perhaps even Indonesia. Yet, these are precisely the scenarios the Australian Government is currently preparing itself to respond.

3. Case Study: The F-35 Joint Strike Fighter

By the mid-1990s, the Australian Government was forced to begin contemplating replacing its aging fleet of 26 F-111 long-range bombers and 71 F/A-18 Hornet fighters. It was a daunting prospect. It would be the most expensive military acquisition in the country’s history and, moreover, for three decades the F-111 and F/A-18 had represented Australia’s air combat capability and their list of admirers was long. In particular, the F-111 had assumed legendary status within the RAAF. The decision on the replacement was expected to come under extreme scrutiny.

In 2002, in a surprise move, the Howard Government effectively cancelled the search for a new aircraft by buying into the development of the F-35 Joint Strike Fighter. On contributing $150 million to the development phase, Defence Minister Robert Hill made clear that Australia only had eyes for the F-35, affirming: “Well if we want to go to the next generation of aircraft, this is really the only one...This is the only one within a

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29 Department of Defence, Defending Australia in the Asia Pacific Century: 2030, (Canberra: Australian Government, 2009), 46.
reasonable budget, and probably the only one that would be available in any event, so it is very important to us, and we are not looking at any alternative.” For a long time thereafter the F-35 enjoyed a sacred-cow status in the Australian Department of Defence. “To question the F-35”, one military insider said, “is a dangerous career move.” It has not been until recently that questions about the program have begun to be heard from within the Australian Government.

Australia’s strategic rationale for acquiring new aircraft is to fill both the air-superiority and long-range strike roles. First, it requires new aircraft to replace its aging F/A-18 Hornets, which are currently used primarily in the air-superiority role. The Hornets’ main task it to maintain control over the airspace across northern Australia and its approaches. This is a challenging mission. Australia is the size of the continental United States and has a coastline of 36,000 kilometres. To seize, control and defend airspace requires airframes of both sufficient quality and quantity. Thus, it is believed that Australia requires at least the same number of the new aircraft as the Hornets it is replacing.

The second role is long-range strike to replace the F-111. In 1963, the Australian Government committed to purchase 24 F-111C Aardvarks. It was a contentious choice. The decision was made to acquire the strike bomber while it was still on the drawing board. The first prototype did not fly until the following year. In the early 1960s, Indonesia was in the throws of an internal struggle against Communism and there was a fear that Indonesia maybe on course to become the “Cuba of South-East Asia”. If this became reality, then the prospects of Australia acquiring nuclear weapons was a very real possibility. The F-111 was to be the main delivery system. As Carlo Kopp explained “The F-111C, with the range to hit Jakarta flying from RAAF Learmonth in Western

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23 Indeed, when defending the decision to purchase the F-35 off the drawing board and the seemingly endless technical difficulties, Australian advocates will compare the process with the F-11’s early acquisition stages; in contrast critics will tend to compare it to the Collins Class submarine fiasco.
Australia, would have been the unstoppable nuclear delivery platform.”

Events always move more quickly than platforms. By the time the F-111 entered RAAF service in 1968 the threat of a Communist takeover in Indonesia had past. Nevertheless, for the next three decades, the F-111 remained Australia’s frontline deterrent. At the time of its retirement, the F-111’s range (roughly twice that of the F-35), its payload (rough half that of the B-52) and speed (twice the speed of sound at altitude), had not been equalled by any other tactical aircraft. It is almost certain that had the United States Air Force replaced its own F-111s with a speciality aircraft to preform those same duties, then Australia would have been its first customer.

**Interoperability and the Joint Strike Fighter**

Thus, there were high risks in choosing the right aircraft to replace to the F-18 and F-111. It is therefore surprising the speed with which the Howard Government committed to the program. There were several reasons why the Howard Government was so confident in its decision. First and foremost, the F-35 was the only fighter in the pipeline that could reasonably fulfil Australia’s need for a “fifth generation” fighter. Even if Canberra could convince Congress to release F-22 for international sale, it was primarily an air-superiority fighter and was not expected to possess adequate ground strike capabilities. As others in this issue have pointed out, most leading European nations were looking to join the F-35 consortium rather than developing their own aircraft. As such, the F-35 was the only choice if Australia wished to remain technologically ahead of its immediate Asian neighbours.

The added benefit of interoperability should not be overlooked. The F-35 is frequently pointed to by the Australian Government as a prime example of its attempt to improve interoperability with the United States. As early as 2003, for example, a Deputy Secretary for the Department of Defence, Shane Carmody, told a hearing of the Joint Standing Committee on Foreign Affairs, Defence and Trade Subcommittee that: “It was raised

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and agreed at the last [Australia and United States Ministerial meeting (AUSMIN)] that we would work a bit harder on interoperability. Again trying to slice and dice that, from my perspective there are issues of strategic interoperability – strategic decisions we make such as the joint strike fighter and being involved strategically as a long-term strategic ally of the United States.”25 Indeed, it has been, at times, suggested that the mere participation in the development program is a sign of the strength of the relationship. Jeffrey Lantis and Andrew Charlton, for instance, argued that ties “have been strengthened through increased intelligence and technology sharing following September 11, 2001, and Australia participates in the multibillion dollar Joint Strike Fighter program.”26

The F-35 fits neatly into Australia’s conception of operational interoperability. First, it allows Canberra a sense of independence and self-reliance. Australia has traditionally had a significant technological advantage over its closest Asian neighbours. Recently, however, this status has come under increasing competition. From 2010 onwards, Australia’s neighbours will begin receiving the latest versions of the Su-27/30 family of aircraft. These aircraft will not only outmatch Australia’s current inventory of F/A-18 Hornets, but will be able to perform comparably with everything but the latest “fifth generation” of fighter aircraft, such as the F-35. Hence, the F-35 will allow Australia to leap ahead of its neighbours and regain its position as the regional leader in airpower. This provides Canberra with a sense that it could potentially be self-reliant in a direct confrontation with a regional player.

Second, it is expected that the F-35 will allow Australia to contribute to a United States led coalition within the region or beyond. Australia has had difficulty in deploying its aircraft on coalition missions because it has not adequately kept pace with US military

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upgrades. After falling behind, the RAAF has had difficulty catching up in key areas. In some areas, this makes coalition operations difficult, but in other areas – such as aircraft identification systems – it makes joint operations extremely risky. Australia expects that the purchase of the F-35 will reset this imbalance and make coalition fighting more accessible. Overall, therefore, the purchase of the F-35 neatly dovetails with Australia’s perception of interoperability, where both self-reliance and dependence are in balance.

*The potential emergence of the quantitative capabilities gap*

As technology has advanced, military platforms have progressively become more expensive. Nowhere is that more evident than in airpower. Across time, the costs for new aircraft have increased exponentially. Estimates vary considerably on the final cost of each F-35, but is predicted that Australia will pay around US$134.5 million each for the first batched delivered.27 Allowing for inflation, this is roughly three times the cost that Australia paid for each F-111C. And, 220 times the cost paid for its P-51 Mustangs in 1945. Typically, however, performance and technology advances have allowed nations to acquire fewer aircraft than the aircraft they are replacing. That is, more capable aircraft can generally compensate for numbers. But, in a break from the past, most countries are intending to purchase round the same number of F-35s as the number of aircraft already in service. Australia is no exception. Although the F-35 is three-times the cost of the aircraft it replaces, Australia does not believe the F-35 can perform the necessary roles with one-third the numbers.

The headache for the Department of Defence is threefold. First, as discussed above, it believes it requires one hundred F-35s in order to not experience a decrease in combat capability. Second, the Australia Government is currently reducing its defence spending.

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27 Andrea Shalal-Esa, “U.S. Sees Lifetime Cost of F-35 Fighter at $1.45 trillion,” Reuters, 29 March 2012. It is hoped that the cost will drop for later deliveries. Some estimate that costs might drop as low as $75 million per aircraft, but most estimates hold the cost above $100 million. See, David Watt, *The Joint Strike Fighter: Overview and Status*, (Canberra: Parliamentary Library Information Service, 2012), 8-9.
In 2013, for instance, the defence budget will fall in real terms by 10.5 percent.28 The 2012 national budget cut $5.5 billion from defence spending over four years. This is placing increasing financial pressures on all areas of defence, but procurement will be particularly scrutinised with projects being cut, delayed or being spread over a longer time frame. Finally, the F-35 program is currently experiencing alarming cost and time slippages. The most concerning comparison of the F-35 program is with that with the development of the F-22 Raptor. The F-22 Raptor is typically pointed to as an exemplar of runaway costs and the F-35 program has already surpassed the F-22 at the same point in its development. The F-35’s initial sticker price was $55 million, which has now climbed to above $130 million. The F-22’s unit cost was eventually delivered at just under-200 percent its baseline projections.29 The F-35 is on track to match, or even surpass, the F-22 program’s cost inflations.

Another concern for Australia is time slippages. Australia has committed to purchase 14 aircraft to be delivered in 2014 at the cost of $3.2 billion. The delivery of these aircraft in 2014 is now looking increasing unlikely. After receiving these aircraft, Australia had planned to purchase most of its aircraft from 2015, which would be later in the production circle. This would have decreased the cost of subsequent airframes. However, the production line in 2015 will not be as mature as previously envisaged. To purchase additional aircraft in 2015, Australia would have to pay a premium – and that is if the aircraft are available at all. Australia has already retired its F-111 and the F-18’s lifespan is unlikely to reach 2020. As such, time slippages will create a significant capabilities gap. The decision will be to either purchase the F-35 on schedule and pay the premium (and buy fewer) or acquire a “stop gap” aircraft – such as the F-18 Super Hornet – and then buy fewer F-35s. It seems that the Australian Government is heading towards the latter solution. In 2006, Australia hastily announced its purchase of 24 F/A-

18F Block II Super Hornets. The purchase was intended to help fill the void the retirement of the F-111 would create. The Super Hornet entered RAAF service in October 2011.

The F-35 program is not unique. Australia is currently struggling to maintain the depth and scope of many high-end platforms. Budgetary constraints are also impacting upon the Royal Australian Navy’s plans for additional Hobart Class Air Warfare Destroyers, 12 replacement submarines and the Army’s vision to “harden” by acquiring self-propelled artillery and additional armour assets. There is an increasing call for Australia to restructure its defence forces to a less ambitious model. Mark Thomson, Australia’s leading defence economist concludes that rather than “seeking a role in the evolving balance between the great powers of the Asia Pacific, [Australia needs] to focus on realistic tasks that are achievable within a realistic budget...Every day of big planning but small spending risks incoherent decisions that we’ll have to live with for years. Now is the time to sort out the wreckage of the 2009 white paper.”

4. An Alternative to “Operational” Interoperability

Australia is not the only nation that is struggling to keep pace with the sticker price of high-end military equipment, such as the F-35 JSF. Indeed, the United States’ military itself is coming under increasing budgetary pressures and will be reduced over the coming decade. In 2011, the United States Government cut its defence spending by $450 billion. In addition, up to a further $600 billion maybe cut over the coming decade. These combined cuts represent a 20 per cent reduction in America’s defence spending. Defence Secretary, Leon Panetta, believes that a 20 per cent reduction in defence spending will result in the smallest ground force since 1940, a fleet of fewer than 230

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ships, the smallest number since 1915, and the smallest tactical fighter force in the history of the Air Force. In a sign of things to come, the United States has already decreased its orders for F-35 by 15 per cent from 2,866 to 2,457.

It is likely that spiralling costs and shrinking budgets may limit the number of F-35 JSF that Australia and the United States will be able to acquire. Australia may not be able to buy the requisite number of F-35s to defend its airspace and provide a deterrent to its neighbours and the United States may have to reallocate resources to compensate for reduced numbers. The overall result may well be that both nations find themselves with less capacity to respond to all contingencies than they were before the current round of defence acquisitions.

Nations are entering an era when they will not be able to respond to the full-spectrum of contingencies. The price of maintaining a defence force that is capable of responding to the full spectrum is coming to an end. Although, over the long term, advances in unmanned vehicles and robotics might decrease costs, in the immediate future all nations will be forced to make hard choices on what threats they wish to prepare to respond. Under these circumstances, alliances will become more important as nations come to depend on other more frequently and more deeply.

There is thus a strong strategic rationale for the US-Australia partnership to shift the concept of interoperability from the operational to the politico-strategic level. Under this formulation, the United States and Australia would more deeply coordinate their efforts and specialise in different areas, while relying on the other to respond to those contingencies outside their specialities. For its part, Australia would move to specialise in low and mid-level contingencies. The conventional threat to Australia’s territorial integrity, sovereignty or vital strategic interests is low and will remain low for the foreseeable future. Even if a 21st Century version of the “Great Game” is played out in Asia, Australia is not Belgium. Graced by geographic positioning, Australia is not on the
way to, or from, anywhere. In contrast, the United States is best placed to continue to prepare for large-scale operations against regional powers, while leaving lower level operations to its regional friends and allies, like Australia.

Australia has a long history of lower-level operations, such as peacekeeping, peace monitoring, and counterinsurgency. *Defence 2009* confirms that responding to weak states and irregular threats will continue to be the dominant form of action the ADF will take in the region. These are the conflicts that Australia has traditionally been most focussed on. From the Boer War, through to South Vietnam, Bougainville, Cambodia, Somalia, East Timor, Solomon Islands, Iraq and Afghanistan, the contingencies that Australia has needed to respond and has performed well. Its high-end platforms, on the other hand, have rarely been used. The F-111, for instance, was never used in combat and the Hornets have only seen very limited operation experience in Iraq. Similarly, the F-35 JSF is unlikely to ever be used in combat. As John Angevine has argued

> these expensive systems will be to small in number to support higher-end operations independently. The lack of a full spectrum of capabilities will weaken the ADF’s capability to build regional partnerships and formulate flexible options to secure Asia-Pacific security and stability. In order to use the ADF more likely “low-end” contingencies, Australian defense planners will have to resort to expensive and time-consuming ad hoc restructuring.32

By attempting in vein to prepare for high-end operations, Australia will only limit its ability to respond to the contingencies it is most likely to face over the coming decades.

An emphasis on self-reliance and high-end capabilities has two additional problems for Australia. First, they can send a negative message to the region: one of mistrust and fear. A greater emphasis on regional joint operations and land forces communicates Australia’s intention and need to work cooperatively with its neighbours and positively

contribute to the region’s stability. Second, by focusing on high-end contingencies, Australia has made itself more reliant on the United States across the board. It will be more reliant on Washington to assist in low and medium level security challenges, while also likely requiring its assistance if engaged in a serious conflict with a major regional power. In either case, even after extending is budget beyond what it can probably afford, Australia will be more a liability than an asset to the United States.

For its part, the United States has lost all appetite for low-level operations. Over a decade of continuous war in Afghanistan and Iraq has left Washington with no stomach for peace building, peacekeeping, counterinsurgency or stabilisation missions. United States Defense Secretary, Robert Gates, referenced General MacArthur when he told a West Point graduation ceremony that: “In my opinion, any future defense secretary who advises the president to again send a big American land army into Asia or into the Middle East or Africa should ‘have his head examined’,“ and continued that “The odds of repeating another Afghanistan or Iraq – invading, pacifying, and administering a large third-world country – may be low.” Nevertheless, these kinds of operations will continue to be necessary, and if not the United States, who will conduct them? It is likely that the United States will expect allies, such as Australia and its NATO allies, to lead the way on lower-level operations in their particular neighbourhoods.

The United States continues to possess a significant competitive advantage in high-end military operations. Whereas Australia plans on purchasing 100 F-35 Joint Strike Fighters, the United States is seeking 2,443 airframes across the Air Force, Navy and Marines. These planes come with a price tag of $385 billion. The Government Accountability Office (GAO) has estimated that operation and maintenance costs will add $650 billion to this figure. In other words, the United States will spend $1 trillion on the F-35, which is more than Australia’s entire yearly GDP ($924 billion). Within a

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decade, the United States will have 15 and 20 times the number of aircraft as China and Russia, respectively and America’s planes will continue to be far superior to those of its global rivals. Clearly, Washington has traditionally been far more confident focussing on high-end contingencies that can bring America’s unmatched potential in technology and conventional military capabilities to bear.

Towards a 21st century alliance

There are many advantages to both Australia and the United States to move from an operational to a politico-strategic conceptualisation of interoperability. As the price tag for military equipment, personnel and training increase and available budgets decrease, Australia and the United States have to decide on defence priorities and adjust their efforts accordingly. In the coming decades, defence technologies will increase in sophistication and price. The education and training, and thus salaries, for the personnel needed to operate and maintain these weapons and equipment will proportionally increase. We might well be witnessing a significant strategic shift, where even the wealthiest nations in the World will no longer will be able to afford to prepare for all contingencies. Partnerships will become increasingly important.

Nevertheless, the path from operational to politico-strategic interoperability is littered with many problems. Australia and the United States are among the closest of partners. Yet, the foremost challenge will be remedying the surprising lack of trust between the nations. As discussed above, Australia views the United States as an indispensable but also an unreliable ally and the United States remains committed to being able to respond to a full spectrum of contingencies, in large part because of the belief that it cannot, or should not, have to rely on other nations.

Australia and United States should explicitly state that they agree that each will take responsibility for different types of contingencies. This might take on the form of a redrafting of the ANZUS treaty to clarify what each nation can expect from the other in
in different situations. Alternately, and more likely, it might take the form of a joint defence “White Paper” that outlines each nations’ vision for the alliance over the coming decades. Actions will then follow words. Australia will then feel confident enough to emphasise the defence acquisitions, doctrines and deployments that aim the at low and mid-range spectrum of military operations in its immediate region. The United States might then station addition high-end assets in Australia for its defence and in the pursuit of joint strategic objectives.

The F-35 JSF would be directly affected by any move from operational to politico-strategic interoperability. Australia would decrease the number of aircraft, say from four squadrons to two. In place, it would redirect resources to the pursuit of capabilities better suited to low-end contingencies, such as transport helicopters and surveillance UAVs. The United States might then compensate such a move by agreeing to permanently station two squadrons of Air Force F-35s in Australia. These squadrons would work jointly with the RAAF’s F-35s squadrons. At the very least, as Professor Hugh White, has stated: “The government needs to do something [that] no one has done in this entire process and that is to make a serious judgement about what it wants air power to do in the period 2020 to 2040.”35

5. Conclusion

Australia’s current pursuit of operational interoperability sends two seemingly contradictory messages. First, that Australia expects to fight alongside the United States in any future conflict in its own defence, on expeditionary missions within the region or global security operations. Second, that interoperability is not integration. Although since the Great War, Australia has sent it own forces to fight alongside America in every one of its major conflicts, it worries that this level of loyalty might not always be

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reciprocated. Therefore, it has maintained a position of self-reliance in all its defence decisions.

Using the F-35 program as an example, this paper has argued that this logic of interoperability is becoming increasing untenable. The increasing cost of acquiring, maintaining and staffing military equipment has placed the preparation for the full spectrum of military contingencies out of reach for even the wealthiest of nations. Although the F-35 represents the largest and most expensive defence acquisition in Australia’s history, questions remain on whether there will be a quantitative gap in its defence. That is, whether Australia will be able to afford enough aircraft to adequately perform all the duties expected of it. Furthermore, Australia’s airpower contribution to any major American led military operation will remain only token. Hence, its current position is not fulfilling either objective – self-reliance or significant coalition contributor – adequately.

Instead, this paper has submitted that the logic of interoperability should be shifted upwards from the operation to the politico-strategic level. In practice, that means a greater division of labour between Australia and the United States. Australia would agree to specialise in low and mid-level contingencies (such a peace and stability operations), while the United States would continue to prepare for high-level conflicts with regional powers. Australia would then be able to recapitalise resources from unaffordable and excessive air and sea capabilities, such as the F-35, into ground and amphibious forces to deal with the more likely scenarios confronting the nation and the region. This approach would play to each nation’s competitive advantage and make the relationship better reflect the challenges that will confront both over the coming decades.