The Navy as a Force for Good: A Future Force Structure for the Australian Navy

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This paper proposes the naval force structure required for the Australian Defence Force (ADF) to project power as a maritime 'force for good'.[1] Given a strategic environment with a low likelihood of state on state conflict; the future ADF will participate in medium to low-level conflicts where stability and humanitarian operations against non-state actors are at the fore. Naval diplomatic and constabulary tasks are emphasised, although medium to low-level military tasks are also important. Navy deployments since 1990 have highlighted the type of blockade, stability and peace operations that will need to be conducted by a future Royal Australian Navy.[2]

A Liberal-Democratic View of Australia's Strategic Environment

Although much has been written about Australia's future strategic environment over recent years there is really very little disagreement over the fundamentals. Most importantly, Australia is unlikely to be invaded by any other state in the foreseeable future. Over 220 years ago, the British used their global maritime power to invade Australia but even then they took some 150 years to conquer the continent in its entirety. The Australian frontier spread slowly, radiating out from the port-cities like a wheel's spokes from its hub, until even the remote and barren interior was brought under control.[3]

Defence against a raid continues to cause some concern amongst Australian military planners, but what state would actually raid us? It is possible that some states may believe a military raid could produce worthwhile results against an undefended Australia; however this is also a most unlikely scenario as long as we do not disarm unilaterally. Most of the states that

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[1] The term 'Force for Good' has been commonly used within Australia and especially in the United Kingdom for at least the last 10 years. For example see Kevin Rudd, 'Australia 2020 - Setting the Nation's Sights for the Future', Address to the Sydney Institute Annual Dinner, 16 April 2008, <www.pm.gov.au/media/Speech/2008/ speech_0203.cfm> [Accessed 9 May 2008]; and 'Making Australia a Force for Good', <eherald.alp.org.au/articles/0906/ natp28-01.php> [Accessed 9 May 2008]. For a recent discussion in the maritime context see Jeremy Blackham and Gerry Paulus, 'Maximising the Potential of UK Maritime Forces in Peacetime 'A Force for Good', *RUSI Journal*, vol. 153, no. 2 (April 2008), pp. 60-63.
[2] Royal Australian Navy, *Database of Royal Australian Navy Operations, 1990-2005* (Canberra: Sea Power Centre - Australia (SPC-A), 2005).
[3] For example see Frank Broeze, *Island Nation, A History of Australians and the Sea* (St Leonards: Allen & Unwin, 1998), pp. 26-38, 117-129.

could raid Australia have more important targets much closer to their own bases. Of course, the rise of global terrorism has increased the potential for attack by non-state actors and in future some regimes that sponsor terrorism could assist those who might wish to attack Australia for political or ideological reasons. So, unlike some of our South Pacific neighbours, we do need to retain some form of defence against raids.

The solution is not necessarily more layers of defence, like so many concentric circles around the Australian continent; rather we should remember that the best form of defence is the offence. In the late 19th century while many Australians feared that Russian cruisers would raid our cities, coastline and commerce, the British Admiralty held a much more strategic outlook. If the Russians ever dared to attack an outpost of the British Empire then they could expect a Royal Navy fleet to sail across the Baltic and bombard St Petersburg to submission.[4] When one is confronted with this type of strategic decision making, one understands how dependant our defence is upon global power plays. Clearly much of this offensive strategy retains its relevance in today's circumstances. Any raid against Australia by a rogue state or non-state actor will have its own consequences. The raiders must expect to be hunted down and their home bases destroyed, in response to such actions. Australia, with its coalition allies, must be ready to defeat such rogue elements wherever they are based, anywhere around the world.

As an island nation, Australia has always relied heavily upon seaborne communications for its social, economic and political well-being. The continuation of free movement of shipping through the Middle East and maritime South East Asia has always been a major defence interest for Australia. It is not just a coincidence that the majority of conflicts involving Australian forces have occurred adjacent to our sea lines of communication.

Australia's geography ensures that much of our strategic environment is enduring. When the Commonwealth Department of Defence was established, in 1901, Australia was part of a global alliance of British Empire nations heavily reliant upon the United Kingdom for strategic defence. In the Pacific, Australia felt threatened by the emerging economic and military power of the United States of America, Germany and Japan. How we dealt with these powers 100 years ago continues to resonate in the early years of the 21st century, when we may feel threatened by the re-emerging power of China, India, Russia and Japan.

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[4] Based on the words of Andrew Lambert in *The History of the Royal Australian Navy*, (DVD), Episode 1 (Garden Island: Navy Video Unit, 2008).

Much of the above may seem very familiar to those who have followed the recent discussions on Australia's strategic environment.[5] This should not be surprising as supposed differences in our strategic environment arise from underlying differences in individual philosophical interpretations rather than from the strategic fundamentals.[6] Whereas some see the future strategic environment ('strategic tides') leading to major wars between nation states, with Australia isolated and forced to defend the continent against a stream of would be invaders, others have opted for a flexible compromise of high-end and low-end warfighting situations where Australia may not be able to withstand an attack by a major power but will be able to conduct a fighting retreat until a powerful ally comes to our aid. Both of these interpretations fall into the so-called realist camp.

There is however a third interpretation. The same 'strategic tides' need not lead to future wars. The example of the working compromise between Britain and the United States in the early 20th century demonstrates that cooperation and collaboration between like-minded powers is not only achievable but sustainable. As the balance of international power shifts, as it must, the existing powers have to work together with emerging powers to develop new relationships. No nation state would gain power in the international community by invading Australia unless they were in it for the long haul: the resources gained would not exceed the costs. But Australians are also members of an international community in which it is unacceptable for any nation to gain power by aggressive means. So it is necessary for Australians to be prepared to fight alongside our allies in an international effort to defend what is right and just. We need to work with our friends and allies as 'a force for good'.

In fact our preferred future should be a 'liberal-democratic' one, where international cooperation uses force to help overcome conflict, instability and terrorism where necessary as well as help with humanitarian support after natural or man-made disasters. The Australian Defence Force (ADF) must act as a 'force for good' in defence of Australia and its national interests, with the Royal Australian Navy (RAN) being a 'force for good in the maritime environment'.

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[5] Recent commentators include, Allen Behm, *Strategic Tides: Positioning Australia's Security Policy to 2050*, Kokoda Papers No. 6 (November 2007); Ross Babbage, 'Learning to Walk Amongst Giants: The New Defence White Paper', *Security Challenges*, vol. 4, no. 1 (Autumn 2008), pp. 13-20; and Stephan Frühling, 'Golden Window of Opportunity: A New Maritime Strategy and Force Structure for the Australian Navy', *Security Challenges*, vol. 4, no. 2, (Winter 2008), pp. 81-104. Alan Dupont, 'Transformation or Stagnation: Rethinking Australian Defence', *Australian Journal of International Affairs*, vol. 57, no. 1 (2003) also remains relevant.
[6] For the view that the traditional continental-expeditionary divide is no longer relevant, see Michael Evans, 'Securing Australia's "Special Intersection"', *Quadrant* (May 2008), pp. 6-15; and Hugh White, *Beyond the Defence of Australia*, Lowy Institute Paper No. 16 (Sydney, 2006).

A Maritime Strategy for Australia

Defence 2000: Our Future Defence Force, following the trend since the mid 1980s, essentially limited Australia's defence policy to sea denial:

> The key to defending Australia is to control the air and sea approaches to our continent, so as to deny them to hostile ships and aircraft, and provide maximum freedom of action for our forces.[7]

But the authors of *Defence 2000* appear to have misunderstood the nature of modern maritime strategy.[8] Maritime strategic concepts are not limited to sea denial but include sea control and power projection. In the past a strategy of sea denial has been used by a weaker force to delay the inevitable, either while waiting for assistance to arrive from an ally or in hope that an opponent will give-up and voluntarily withdraw. Strategies of sea denial were also popular with non-aligned states during the later stages of the Cold War, but in essence the strategy was one of opting-out with the corollary that defence expenditure could be kept to a minimum without admitting that the state could not effectively resist intervention by a major power without outside help.[9] Sea denial, alone, has never been successful as a strategy against a well-planned invasion or raid. In the Australian context sea denial is a complement to sea control rather than an entirely separate concept.

Sea control, on the other hand, is mandatory for an invading or raiding force. It is mandatory for any nation that wants to influence events ashore through maritime power projection.[10] Whereas one might typically think of naval battle as the only means of achieving sea control, it is equally if not more common for superior forces to achieve sea control by default, as opposing weaker forces generally prefer to withdraw or avoid contact rather than risk destruction. Superior maritime forces can use presence to declare an interest, reassure friends and allies, and to deter would be aggressors. A superior maritime force can often achieve more by its very presence than a less capable maritime force.

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[7] Department of Defence, *Defence 2000: Our Future Defence Force*, (Canberra: Defence Publishing Service, 2000), pp. xi, xii and 47.
[8] There are many standard works on modern maritime strategy, one of the most important recent publications is Geoffrey Till, *Seapower: A Guide for the Twenty-First Century*, (London: Frank Cass, 2004). The *RAN Reading List* provides additional titles online at <www. navy.gov.au/spc/readinglist> [Accessed 9 May 2008].
[9] The Swedish Defence Force in the 1980s is a good example of the application of such a sea denial strategy. As with most small to medium powers, the Swedes have become more expeditionary since the mid 1990s. The Swedish naval force structure does not yet fully reflect these changes. For example see <www2.mil.se/en /News/Mission-and-defence/Tasks-resources/?page=6249> [Accessed 9 May 2008].
[10] Royal Australian Navy, *Australian Maritime Doctrine*, pp. 53-54, 65.

Figure 1: Span of Maritime Tasks

Source: Royal Australian Navy, *The Navy Contribution to Australian Maritime Operations*, (Canberra: Defence Publishing Service, 2005), p. 9.

Although it is not well understood and often left un-stated by naval practitioners, the only reason that navies exist is to influence events ashore.[11]   The ability to use force from the sea, i.e. maritime power projection, has been the key to the successes of the global maritime powers for hundreds if not thousands of years.[12]   The ability to concentrate overwhelming forces rapidly means that maritime forces can often act decisively at a point of their choosing achieving local superiority with a minimum number of units. Maritime forces, although smaller, often have more utility than larger continental forces. They are inherently flexible and

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[11] Colin Gray, *The Leverage of Sea Power: The Strategic Advantage of Navies in War*, (New York: The Free Press, 1992), esp. p. 1.

[12] See Till, *Seapower: A Guide for the Twenty-First Century*, pp. 193-234.

mobile, while ships are unique in their ability to move highly capable military force over great distances. With maritime forces, the Australian Government has the ability to deploy adequate forces rapidly where required, to act as a deterrent where possible, but to be on hand with the option to ramp-up if the situation escalates.[13] They are the most cost effective means for Australia to meet all its political and military objectives.

Australia's maritime strategy thus properly includes power projection and sea control, and hence our Defence White Papers should state:

> The key to defending Australia is to employ a maritime strategy to control access to the sea and to influence events ashore, as necessary, in Australian waters, throughout the region and, with our allies across the globe.

Despite the policy direction espoused in *Defence 2000*, in practice the RAN has and continues to plan for and conduct operations involving a full range of maritime tasks. These include many diplomatic and constabulary activities in addition to the military ones. The RAN's actual span of maritime tasks is set-out in the 'triangle of sea usage' (Figure 1). The fact that many of these maritime tasks are enduring is of paramount importance, as anyone who prophesises a future navy which does not undertake similar tasks attempts to overturn the immovable. While terminology and concepts have and do change, the fundamental roles and tasks of navies have not changed significantly over thousands of years.[14]

The basic military tasks of maritime forces, sea control, power projection and sea denial are not just applicable to warfighting but are also needed across the full spectrum of operations (Figure 2). The RAN is required to operate in conflicts ranging from benign peacetime tasks to high-end warfighting, and sea control is often required in circumstances other than open conflict between nation states. For example there was a high risk of Indonesian intervention during the Australian deployment in East Timor in 1999, but the fact that sea control was maintained throughout the lodgement operations was critical to the success of the operation.[15] The ongoing diplomatic efforts that kept the Indonesian Government informed of Australian intentions in East Timor also contributed greatly towards maintaining sea control.

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[13] For example the RAN commitment in the Persian Gulf increased from a single frigate in 2001, to two frigates, an amphibious transport and a clearance diving team before the start of the Iraq War 2003. See Greg Nash and David Stevens, *Australia's Navy in the Gulf*, (Silverwater: Topmill Press, 2006).

[14] Gregory P. Gilbert, *Ancient Egyptian Sea Power and the Origin of Maritime Forces*, (Canberra: Sea Power Centre, 2008), confirms the enduring aspects of the span of maritime tasks.

[15] David Stevens, *Strength through Diversity: The Combined Naval Role in Operation Stabilise*, (Canberra: Sea Power Centre, 2007), esp. p. 4.

Figure 2: Spectrum of Operations

PEACE	⟹	OPERATIONS OTHER THAN WAR	⟹	WAR
Emergency relief		Limited intervention		
Aid to authorities		Contributions to coalition operations		
Law enforcement	Peacekeeping	Local conflicts		
Evacuation	Peacemonitoring	Treaty commitments		
Sanctions	Humanitarian aid	Regional wars		
Coercive Diplomacy		General war		
Terrorism		National Survival		

Source: Department of Defence, *Force 2020* (Canberra: Department of Defence, 2002), p. 9.

But how does this help us develop force structure? In simplistic terms, the likelihood of Australian involvement in peace operations is much greater than the likelihood of involvement in war. The consequences of failure in a war of national survival, however, are much greater than the consequences of similar failures in lower level operations. Risk assessment can be used to evaluate the likelihood of an event against its consequences in order to establish an order of priorities for Australia's future force structure. We have looked at our strategic environment and we have considered our maritime strategy, we now need to consider a number of threat-based scenarios to identify the associated risks and thus to order priorities to establish a future force structure for the Australian navy.

Prioritising Threat-Based Scenarios

Within our region we need the ability to conduct independent operations in defence of Australian interests; hence we need to define exactly where Australia's regional interests lie. Our region is vast. Using historical data and future projections, it includes much of the Indian, Pacific and Southern Oceans, especially the area traditionally called 'East of Suez' by the British. Our region stretches from Southern Africa through to the Middle East, across the Indian Ocean to South East Asia, up to North Asia, across the Central Pacific to the South Pacific and down to Antarctica. Our primary interests are intimately connected with the sea and air communications across this vast area. Thus in terms of distance the ADF needs to conduct sustained maritime operations, as an independent force, at distances up to 10 000 kilometres from the Australian continent. The future ADF must be capable of operating and sustaining power projection and sea control forces over great distances within our region. Such forces are the essence of the future ADF's

joint expeditionary force, and the RAN force structure is an integral part of this 'expeditionary' future.[16]

Let us leave the world of theoretical concepts and examine a number of actual threat-based scenarios. As many of these scenarios are enduring, although specific technologies have and do change, generic scenarios will be adequate for the purposes of this paper.[17]

The scenarios are arranged in five groups. The degree of force applied deceases from 0 to 4:

- Series 0 – Strategic non-conventional attacks.

- Series 1 – Major wars at the high-end of the spectrum of operations, Australia's allies committed elsewhere.

- Series 2 – Conflicts and limited wars at medium to high-end of spectrum of operations with Australians working independently or with coalition partners.

- Series 3 – Constabulary and peace operations at low to medium-end of spectrum of operations with Australians working independently or with coalition partners.

- Series 4 – Diplomatic and humanitarian operations at low-end of spectrum of operations with Australians working independently or with coalition partners.

Each of the above Series 0-4 covers a range of likely scenarios. A number of scenarios for each series have been developed and listed in Table 1 below. These are by no means complete, even though they are indicative of actual threat-based scenarios. These scenario series, in reality, are not discrete situations, rather it is and will be common for ADF units to respond to changing circumstances where the levels of violence escalate or de-escalate rapidly. Hence flexibility of response remains critically important. In an effort to maintain simplicity each of the scenarios includes an estimate of the maximum numbers of ADF personnel to be deployed. So '5000 ADF'

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[16] The joint expeditionary force concept aligns with the stated goals of the ADF future warfighting concept, although the ability to conduct operations in high-level warfighting conditions is not clearly stated (at least, in the publicly available versions) and is, as discussed later in this paper, unattainable. Australian Defence Force, *Joint Operations for the 21st Century*, (Canberra: Defence Publishing Service, 2007) and *Future Maritime Operating Concept – 2025*, (Canberra: Defence Publishing Service, 2007).

[17] Although scenario-based experimentation is a useful technique in the Australian force structure development process the scenarios presented in this paper do not form a part of any official construct. While generic scenarios are presented here to support the 'force for good' mission, detailed threat-based experimentation, undertaken on a joint ADF basis, will be necessary to confirm or adjust the details of the future force requirements.

Table 1: Threat-Based Scenarios and their Risks

		Likelihood (1 - 4)	Consequence (1-4)	Evaluated Risk (1-16)
Series 0	a. Defence against nuclear attack	1	4	4
	b. Defence against non-nuclear weapons of mass destruction	1	4	4
Series 1	a. Major expedition within region in defence of our allies (30 000 ADF)	2	3	6
	b. Defence against invasion of Australia (200 000 ADF)	1	4	4
	c. Independent Australian strike/blockade (5 000 ADF)	1	2	2
	d. Protection of Australia's international shipping (5 000 ADF)	1	4	4
Series 2	a. Minor expedition within region (5 000 ADF)	3	3	9
	b. Defence against raid of Australia (40 000 ADF)	2	3	6
	c. Australian participation in strike/blockade with coalition forces (5 000 ADF)	3	3	9
	d. Australian participation in the protection of shipping against foreign threat (1 000 ADF)	3	4	12
Series 3	a. Constabulary expedition within region (5 000 ADF)	3	3	9
	b. Defence against criminal or terrorist threat in Australia (5 000 ADF)	3	4	12
	c. Protection of Australian sovereignty (5 000 ADF)	4	3	12
	d. Australian participation in maritime partnership for the protection of shipping v. maritime crime (1 000	4	4	16
Series 4	a. Humanitarian expedition within region (5 000 ADF)	3	3	9
	b. Humanitarian expedition in Australia (5 000 ADF)	3	4	12
	c. Diplomatic engagement & presence (5 000 ADF)	4	3	12
	d. Australian participation in maritime partnership for the protection of shipping in peacetime (1 000 ADF)	4	4	16

Note: As sound judgement underpins the selection of these scenarios and the evaluation of the associated risks, it is possible that alternative assessments could arise. Such variations are however unlikely to be significant. The evaluated risks in this table are premised on a liberal-democratic commitment to Australian foreign affairs, defence and trade. The difference between 2d, 3d and 4d is essentially limited to the threat environment (from warlike to peaceful), even though in practice the threats may change significantly over a relatively short time period.

should be read as 'up to 5000 personnel in total from each of the three services (navy, army and air force)'. In many scenarios, these estimates may also include Defence civilians and personnel from other Government agencies, non-Government organisations and/or coalition forces.

The likelihood that each scenario will occur and the consequences of each scenario if it were to occur are given a rating between 1 and 4 (1 represents the lowest and 4 the highest). It should be noted that in an attempt at simplicity this assessment is restricted to mostly high consequence scenarios. The assessed risk is then calculated by multiplying the likelihood and effect ratings, to obtain an evaluated risk rating between 1 and 16. The results of this analysis are then used to set priorities for Australian force structure requirements based on these threat-based scenarios, with risks rated 12-16 being of high, 8-11 of medium, and 1-7 of low priority.

It follows that the higher priority scenarios involve limited wars, conflicts, constabulary and diplomatic operations. They do not involve high-end state versus state warfighting. The highest priorities include: Australian participation in a global maritime partnership for the protection of shipping during times of war and peace; defence against criminal or terrorist threat in Australia; protection of Australian sovereignty; humanitarian expeditions within Australia; as well as diplomatic engagement and presence. The medium priority scenarios are mostly expeditions of choice; either in support of our allies within a limited war, performing constabulary tasks, or as a humanitarian operation. Participation in strike or blockade operations as part of a coalition is also a medium priority. From a structure perspective, an ADF joint expeditionary force capable of being deployed in Australia, in the region and across the globe, is the fundamental component of the high and medium priority expeditionary scenarios. Such an ADF joint expeditionary force also has the necessary flexibility, balance and resilience to contribute significantly to many of the other high and medium priority scenarios identified.[18]

Before we can examine the resulting force structure in more detail there are a few precautions regarding the use of this threat-based scenario tool. Even though an evaluated risk may be low, and the associated force structure priority is therefore also low, there is no guarantee that the scenario will not actually happen. Indeed if our force structure is targeted at the middle to lower end of the spectrum, as it is in this 'force for good' model, then we need to make considerable and determined efforts to minimise the chance of higher level conflicts occurring in our strategic future. This does not mean that we should adopt a policy of appeasement but rather that we need to

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[18] Scenarios 3b and 3c are the exception as they require land and naval forces that contribute directly to Australia's security. The naval component of these scenarios will include patrol boats, mine warfare vessels, and clearance divers. The requirement for such flotilla units is not specifically addressed within this paper.

engage and cooperate with our international friends and neighbours to ensure that we do not turn them into enemies. Major wars are in no nations' interest, and we need to ensure that this fact is well understood. On the other hand, 'a force for good' remains a force to reckon with, especially when forming part of an international coalition. Rogue states, militaries, terrorists and criminals need to understand that the international community will not shy away from using force when force is required for the greater good.

The RAN needs to undertake power projection and sea control operations in Australian waters, throughout the region and across the globe.[19] ADF operations in the vast Australian waters are by necessity expeditionary in nature; units need to operate in parts of remote Australia at great distance from their bases.[20] Our global interests are of great importance, but Australia's contribution throughout much of the world can only be meaningful as part of an international effort under the leadership of one or more of the major powers.[21] This requires units within the future RAN force structure to be readily integrated within larger formations and, when necessary, prepared to fight in high-level combat situations alongside our coalition partners.

Future Force Structure Considerations

The best place to start when we are considering the future is the past. One of the earliest force structure reviews of the RAN, taking into consideration Australia's regional threat, was the Hughes-Onslow Plan of 1913.[22] This plan called for three battlecruiser divisions (including New Zealand ships) to operate off the east and west coast of Australia as well as in the South Pacific. Such expenditure on naval defence was not feasible for Australia (even with New Zealand assistance) with its large landmass, relatively small population and overstretched economic resources. Australians, and their democratic institutions, just did not want to dominate their region in the manner of a great naval power, and they could not afford to do so even if they desired a strong navy. In 1919 the British Admiral Jellicoe recommended the RAN operate a single striking force, two trade defence units and large numbers of smaller vessels (flotilla) for coastal defence.[23]

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[19] This is a truism based upon consideration of the actual operations conducted by the Australian Navy since its formation in 1901.

[20] In the Australian context, ADF operations in remote regions will require a similar force structure as is required for operations offshore. For an overview of expeditionary operations see Till, *Seapower: A Guide for the Twenty-First Century*, pp. 235-270. The Australian context was presented by Robert Hill, the then Minister of Defence, in a speech entitled 'Australia's Response to Terrorism' given at the Menzies Research Centre on 25 May 2004; available from <www.defence.gov.au/minister/HillSpeechtpl.cfm?CurrentId=3845>.

[21] Australia's interests are described within Department of Foreign Affairs and Trade, *Advancing the National Interest,* (Canberra: Commonwealth of Australia, 2003), and Department of Foreign Affairs and Trade, *In the National Interest*, (Canberra: Commonwealth of Australia, 1997).

[22] David Stevens (ed.), *In Search of Maritime Strategy*, (Canberra: Strategic and Defence Studies Centre, 1997), pp. 50-55.

[23] Stevens, *In Search of Maritime Strategy*, pp. 58-60.

Even this was too much for the inter-war period's economic realities, but it did set the scene for the RAN force structure. In fact, since its inception the Australian Navy has never been structured to meet all potential threats to 'Australia and its interests abroad' and it is very unlikely it ever will. The practical navy force structure has always aimed for the most flexible and balanced fleet available for the limited funds allocated by government. Often, such as during the late 1920s and early 1930s and during much of the 1980s and early 1990s, the RAN has not been able to achieve even this limited aim.

The fundamental limitations of our economy thus accounts for any perceived lack of foresight in the Australian Navy force structure planning process since the navy was established in 1901. The answer has always required some judgement (some would suggest juggling) over priorities. The resources have never been sufficient to fund the fleet necessary to meet our global potential threats as defined by the so-called 'realists'. To do so, Australia would require something like a '75 ship navy' and would need to become a medium naval power.[24] In perspective the RAN would be about the same size as the United Kingdom's Royal Navy.[25] Such a force is unlikely to be supported within our democratic system outside of a war of national survival, and if such a war emerged, we would have neither the time nor shipbuilding capacity available to build and operate such a fleet. In terms of size and based on historical common sense, Australia can ideally operate and maintain a force of about 24 vessels or so, a '24 ship navy'. The real question on RAN force structure, then, is what form the limited number of ships should take.

We need to rule out a fleet designed for only 'sea denial'. If the RAN was designed specifically for the low priority scenarios 1b and 2b, listed above, the resulting force would require a large number of submarines and land-based aircraft. Although such units have high deterrence value they are incapable of operating over the broad spectrum of operations. In essence they have the option to destroy the enemy or to avoid them; they are mostly if not only effective in high-end military operations. To be effective, Australian-based aircraft need to wait until an enemy is effectively at our shores. In the liberal-democratic strategic environment described earlier in this paper such weapons would almost never be used to defend the approaches to our continent. For instance, in a major war situation, what ships would our submarines sink? If they target enemy warships our

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[24] The '75 ship navy' is a theoretical estimate by the author based upon three expeditionary task forces and related support vessels. One task force to operate in the Pacific from an Australian east coast base, one to operate in the Indian Ocean from a west coast base, with a third in maintenance, training, or working-up.

[25] The major vessels of Royal Navy in 2008 include: 3 aircraft carriers, 3 amphibious ships, 8 destroyers, 17 frigates, 7 offshore patrol vessels, 4 ballistic missile submarines, 11 hunter-killer submarines, and 24 large auxiliary vessels; giving a total of 76 ships. The population of the United Kingdom is approximately three times that of Australia.

submarines would have to break through a coordinated networked task force with antisubmarine defences-in-depth. There is little likelihood that such submarine sea denial operations could defeat a raid on Australia, let alone prevent the improbable invasion scenario. But of course, even if we successfully defend the approaches to our continent our nation cannot survive for long without our sea-borne trade. Over 99 percent of our imports and exports (by bulk) go by sea, and without secure sea communications our economy, industries and government would be imperilled. We should remember that in 1942 the Japanese did not wish to invade Australia rather they tried to sever our sea communications with the United States. With a policy of sea denial Australia could be blockaded and left to wither on the vine.

Let us return to consider Series 0 scenarios in some detail. In the past, we have relied upon our close allies to help deter the non-conventional state based threats to Australia. This has included defence against nuclear and non-nuclear weapons of mass destruction. The weapons designed for a 'sea denial strategy' are not effective deterrents against such high-level military attacks against our population, for if they were, we would have submarines with nuclear weapons, ballistic missile sites and nuclear armed strategic bombers. Such weapons clearly would go against the grain in Australia. We are not a nuclear power. So what options do we have? In fact the main conventional deterrence we have is that which we have applied in the global war against terrorism. Any international terrorist organisation or rogue state that threatens the security of Australia or our major allies is not safe wherever they are around the world. An international 'force for good', which includes an Australian contribution, must be prepared to meet such threats wherever they may appear.[26] Thus we return to our previous statement (emphasis added):

> The key to defending Australia is to employ a maritime strategy to control access to the sea and **to influence events ashore**, as necessary, in Australian waters, throughout the region and with our allies **across the globe**.

The scenarios which have the highest priority for force structure development (Scenarios 2d, 3b,c,d and 4b,c,d), whether diplomatic, constabulary or medium to low-end military tasks, are intriguingly similar. The protection of shipping as part of a global maritime partnership is critical to the security of Australia in peace and in war.[27] Participating in the maritime partnership requires Australia to contribute surface combatants that can protect sea lines of communication and enforce a blockade or embargo against others. For almost 20 years now the RAN has been at the forefront in practical maritime interdiction operations in support of United Nations

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[26] US Navy, Marine Corps and Coast Guard, *A Cooperative Strategy for 21st Century Seapower* (October 2007), esp. pp. 4-5, 10-14.
[27] Ibid.

Security Council resolutions. In future, such forces will operate in Australian waters and in our region, but must be prepared to substitute for our allies where and when they are most desperately needed. Additionally, although we aim to limit our involvement to medium and low-end conflicts, the recent use of anti-ship missiles by the Hezbollah in Lebanon, highlights the need for all surface combatants to have some form of anti-missile defence for themselves and in order to protect any shipping they accompany.[28]

Other high priority scenarios including defence against criminal and terrorist threat in Australia and protection of Australian sovereignty need not concern us too much here, other than to confirm that there will always be an ongoing need for RAN flotilla vessels and shore based assets capable of working as part of a joint ADF in such operations. Much of the existing flotilla force structure is already based around such scenarios.[29]

The remaining six high and medium priority scenarios involve expeditionary operations of one form or another. The utility and flexibility of a joint expeditionary force over the middle and lower end of the spectrum of operations; including medium and low-end warfighting, operations other than war and peace operations; needs to be recognised. Over the last few years the operation of the ADF's amphibious ready group has demonstrated what can be achieved, but this is only the start of the future direction of the ADF as 'a force for good'.[30]

An ADF Joint Expeditionary Force

What exactly do we mean by a joint expeditionary force? Such a force has to be 'a force for good' in Australian waters, throughout the region and across the globe. It will consist of up to 5 000 ADF personnel, and it will employ Australia's maritime strategy of both power projection and sea control.

In order to operate 'a force for good' the force does not need to be designed for high-end warfighting, where the naval force might be attacked by large numbers of missiles/torpedoes (launched from the air, by other ships or submarines, or from the land). However, even when the force is operating in the medium and low-end of the spectrum there is some need to retain layered defence against missiles/torpedoes that are likely to be used by non-state actors or rogue militaries. The ability to survive an initial attack and be able to still fight back is especially important when a force is regularly

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[28] Matt Brown and Mark Simkin, 'Hezbollah missile hits Israeli warship', *ABC News Online*, July 15, 2006, <www.abc.net.au/news/newsitems/200607/s1687365.htm> [Accessed 9 May 2008].

[29] Although the current flotilla force is adequate, in future, greater flexibility of patrol boats, mine warfare and hydrographic vessels will be required to better support operations away from home as well as at home.

[30] David Stevens, 'Operation ASTUTE—The RAN in East Timor', in Andrew Forbes and Michelle Lovi (eds.), *Australian Maritime Issues 2006* (Canberra: Sea Power Centre, 2007), pp. 171-175.

engaged in operations other than war.[31] It will be necessary to minimise the likelihood of casualties if attacked, but to also have the firepower necessary to respond with proportionality. It is important to retain a few ships that could be integrated into a coalition fleet in the event of an actual state on state war. Hence ship survivability will continue to remain an important criterion for our future force.

The joint expeditionary force needs to operate at distances up to 10 000 kilometres from its Australian base. In addition, it must be capable of sustained operations for at least three months in the operational area. This means that the force must have long endurance and be integrated with suitable follow-on forces. Logistic support including munitions, food, water, fuels, spare parts and equipment must be available when and where needed. As the greatest volume of the follow-up units and logistic support must come by sea, an adequate fleet train is mandatory for sustained expeditionary operations. All components of the joint expeditionary force should be sea based to avoid impractical logistic-tails and to obviate the need to obtain basing rights from other nations.

The estimated maximum number of ADF personnel in the ADF joint expeditionary force should include approximately 1 000 navy, 3 000 army, 500 air force, as well as 500 ADF command and support personnel.[32] The force must be a truly joint maritime one that lives, trains and operates at sea together.

The 'power projection' force will include amphibious ships and support vessels. An Australian army 'marine combat group' (up to 1 800 troops) will be capable of being deployed by air and/or over the beach. The land forces will need to be supported by naval landing parties, naval gunfire support and fixed wing ground attack aircraft. Follow-on forces (1 200 troops) may be airlifted or moved by sea to join the expedition. Power projection forces have utility in their rapid response that diminishes rapidly if they are employed in long ground campaigns.

The 'sea control' force will have to control access to the sea in the operational area. It effectively operates as a 'defensive bubble' that not only includes the sea surface itself, the air space above (air control), the water mass and sea bed below, as well as the electro-magnetic spectrum. The bubble must prevent enemy forces from using the sea at the same time as it defends all components of the power projection force. The sea control force may need to use air power to strike rebel forces or rogue militaries at their

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[31] The Royal Navy's colonial cruisers in the 19th century favoured armament over protection but they could always be reinforced by first-class warships. See Conrad Dixon, *Ships of the Victorian Navy* (Southampton: Ashford Press, 1987), p. 7.

[32] These are estimates only and will vary depending upon specific mission requirements. It includes all components of the joint expeditionary force afloat, ashore or in the air. They include all ADF personnel not just combat troops.

base. Air power must be available as part of the defence-in-depth measures of the joint expeditionary force. Air defence systems at sea and on land will also contribute to the defence-in-depth in the air. Any surface or submarine threat must also be dealt with by defence-in-depth measures including a combination of aircraft, surface ships and submarines. Submarines need to be large hunter-killers types with long endurance, capable of operating as a networked unit within the joint expeditionary force. The sea control force must be faster and more robust than the power projection force that its helps to protect, because it must counter any threat before it can interfere with the more valuable amphibious or logistic support components of the joint expeditionary force. The joint expeditionary force should thus be the basic building block for the RAN future force structure.

RAN Future Force Structure

Australia's Navy for the 21st Century sets out the proposed future RAN force structure for 2025.[33] This was based upon government guidance which largely sought the compromise solution of a balanced fleet essentially modelled by replacing the existing fleet like for like. The planned major fleet units include:[34]

- 3 destroyers

- 12 frigates

- 2 power projection (amphibious) ships

- 1 logistic support (sealift) ship

- 2 oiler/replenishment ships

- 6 submarines

Obviously a large part of this fleet will remain in-service for sometime as legacy vessels, however the inherent flexibility of the surface forces means that only a few important changes are necessary for this fleet to be suitable for the RAN 'force for good' structure. Assuming the current funding levels do not change significantly, it is possible to develop a future naval force structure that meets the joint expeditionary force requirement. This structure has the flexibility to also meet (as far as the navy contribution is concerned)

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[33] Royal Australian Navy, *Australia's Navy for the 21st Century*, (Canberra: Defence Publishing Service, 2002), pp. 18-19. Although more recent, Royal Australian Navy, *Plan Blue 2006*, (Canberra: Defence Publishing Service, 2006) adds little to the earlier document and is much more jargon loaded.
[34] This list also reflects some details taken from the most recent Defence Capability Plan: Department of Defence, *Defence Capability Plan 2006-2016*, (Canberra: Defence Publishing Service, 2006).

all medium and high priority scenarios identified in this paper. The proposed major fleet units for 'a force for good' will include:

- 1 'sea control' light carrier

- 4 destroyers

- 12 frigates

- 2 'power projection' (amphibious) ships

- 2 logistic support (sealift) ships

- 2 oiler/replenishment ships

- 2 submarines[35]

The major addition is the 'sea control' light carrier.[36]   This should be approximately 28 000 tonnes, about the same size as the amphibious ships, with up to 24 Joint Strike Fighters (STOVL) onboard.[37] This should be seen as meeting a joint requirement with a large Royal Australian Air Force (RAAF) component and not a purely navy requirement. Amongst other tasks, the RAAF will need to undertake air control and ground support tasks, at and from the sea, as an integral part of the joint expeditionary force throughout the operational area. As the RAAF is responsible for fixed-wing air operations, it is only logical that the RAAF should conduct all air operations on and off the light carrier. The STOVL aircraft should be included within the Joint Strike Fighter purchase as direct replacements for the same number of conventional aircraft. Conventional Joint Strike Fighter squadrons could be deployed ashore in support of the joint expeditionary force if the situation is warranted. Indeed, it should be a higher priority for the RAAF to operate 24 STOVL Joint Strike Fighters on a routine basis in support of ADF joint operations, rather than maintain a large number of

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[35] This force structure is indicative only, as the exact numbers and types of vessel required can only be confirmed by evaluation and testing as part of the normal Defence capability development process. It is suited for the high-priority, low and medium-intensity type operations in general, without claiming to be the most effective or efficient solution for a particular scenario. Of course, acceptance of the 'force for good' posture will have significant affects on the rest of the ADF as well, which are however beyond the scope of this article.

[36] Richard T. Menhinick, *Sea Control and Maritime Power Projection for Australia: Maritime Air Power and Air Warfare*, (Wollongong: Oceans Publications, 2005), esp. pp. 87-122.

[37] STOVL: short take off and landing. Not all need to be operated from the Light Carrier's flight deck, but should be available for use ashore or as replacements depending upon the operation undertaken. The estimated number of 24 is based upon 12 organic and 12 follow-up aircraft. The total numbers and types would have to remain flexible to meet specific mission requirements, like the Royal Navy's 'Tailored Air Groups' <www.royal-navy.mod.uk/server/show/nav.1287> [Accessed 9 May 2008]. See also Andrew G. Shorter, 'STOVL JSFs put teeth in Sea Basing', *Journal of the Australian Naval Institute*, no. 113 (Winter 2004), pp. 23-26.

conventional Joint Strike Fighters defending Australia's shores against an invasion that will never come.

The 'sea control' light carrier will have a political and symbolic value much greater than the cost of its military constituents. As the flagship of the navy, and possibly the third vessel to be named HMAS *Australia*, it would contribute significantly to our nation's diplomatic efforts. It would be a unique symbol of our national sovereignty and national interests.[38]

Another addition to the current RAN force structure plans is the inclusion of a fourth destroyer. Even though frigates remain valuable as escorts for trade protection and as screens for the ADF joint expeditionary force in medium to low threat environments, they do not have the area defence capability and survivability of a destroyer. Powerful warships, as evidenced by the presence of one or more destroyers, are a most visible deterrent. Potential opponents have opted to de-escalate a conflict rather than challenge a warship. By itself a single destroyer will have little impact during a full blown missile war at sea, but in medium to low-level conflicts it is the best insurance policy against aggression. In addition, an extra destroyer will provide greater flexibility for Australian participation in global operations where we wish to make a worthwhile contribution as part of an international coalition.

The current plans to build two helicopter-capable amphibious ships should be maintained to give maximum flexibility and capacity to meet the power projection requirements of our medium and high priority scenarios. Unfortunately there is a common misconception that large amphibious ships are designed for high-end warfighting, with the perception that amphibious operations have to be against heavily fortified opponents like the 1944 Normandy D-Day landing. This is no longer the case. The ADF exploits manoeuvre by going where an opponent is not, to obtain effects by presenting that opponent with a dilemma that they cannot resolve.[39] These 'power projection' (amphibious) ships are equally if not more useful at the medium to lower end of the spectrum of operations. Experience has shown that amphibious ships are useful for most scenarios from enabling stability operations and disaster relief, to handing out food packages or medical assistance to under-developed communities. Even the US Navy which has had a strong traditional warfighting focus, now emphasises the great utility of

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[38] For an overview of the roles and missions of aircraft carriers in peace and war see A. T. Ross and J. M. Sandison, *Historical Appreciation of the Contribution of Naval Air Power*, Department of Defence, Central Studies Establishment Working Paper No. 7, (January 1978).
[39] Department of Defence, *Joint Operations for the 21st Century*, (Canberra: Defence Publishing Service, 2007), pp. 19-20.

its 'power projection' ships in undertaking its constabulary and diplomatic roles.[40]

Logistic support for the ADF joint expeditionary force is a critical but often overlooked requirement. Expeditionary forces without adequate naval logistics are unsustainable. This was as true for the Australian Imperial Force deployed on the Western Front during World War I, as it is today with ADF personnel deployed in the Middle East.[41] The future ADF must be capable of sustaining itself for at least three months in our region. In the past we have taken vessels up from trade to help with our logistic support however the decline in Australian registered vessels coupled with their increasing size and specialised designs effectively limits our ability to use commercial shipping in future. In order to meet the ADF's future offshore logistic requirements we will need to operate at least two sealift ships and two oiler/replenishment ships. In future we will need a second logistic support (sealift) ship in addition to that identified in current navy plans.[42]

This leaves us with the question of what to do with the submarines? Even within a 'force for good' there is a requirement for submarines. When they operate as part of the networked joint expeditionary force submarines can undertake valuable information gathering and surveillance tasks and they remain the best means of defence against rogue submarines. However the requirement for six submarines with several operating independently and constantly on watch defending the approaches to Australia, is not the best use of such valuable and costly assets. Two submarines would be the minimum force necessary to meet the ADF mission 'to be a force for good' as proposed in this paper.[43] The funds gained by the reduction of our submarine forces from six to two are proportionally greater than say the reduction of four surface combatants, as the submarines are by their very

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[40] Joseph Sensi, et al., 'Alternative LHD-1 Class Warship Missions', *Proceedings*, vol. 134, no. 4 (April 2008), pp. 78-79.

[41] During both World War I and II Australian units relied heavily on our allies, Britain and the United States, for their logistics needs.

[42] Department of Defence, *Defence Capability Plan 2006-2016*, p. 67 identifies a strategic sealift capability "to transport bulk equipment, supplies and forces into a theatre of operations and provide significant ongoing support to deployed forces". Sustained operations by an ADF joint expeditionary force would require at least two such vessels. The terminology 'logistic support ship' is preferred in this paper.

[43] It is true that three conventional submarines are required to maintain a continuous presence in an area of operations (one on station, one in transit, one in maintenance, training, or working-up), but this is irrelevant when assessing the number of submarines required to operate as part of a joint expeditionary force. Expeditions by their nature are not continuous but rather contingent. Their timing and composition are planned with full knowledge of the availability of necessary units and maintenance plans may be altered to meet high operational commitments. When it comes to surface ships, three or more units would also be required to be able to maintain a continuous presence, but of course we don't concern ourselves with the gaps in availability that arise when we operate only one or two surface ships. Experience has shown that several amphibious ships are very effective when deployed on short missions of up to three months. This is the essence of joint expeditionary warfare.

nature costly defence assets to build, maintain and operate. This reduction in the submarine force would largely compensate for the corresponding increases in cost that result from the new 'force for good' RAN force structure.

Conclusion

It has been suggested that since the 2000 White Paper, the RAN force structure has not reflected Australia's defence policy.[44] This may be true as far as the actual words put down on paper are concerned, however it is now clear that despite the loss of the light carrier HMAS *Melbourne* in 1982 which did give the ADF some measure of air control over water, and despite the clever argument of the 'sea denial' advocates of the 1980s and early 1990s, the RAN force structure has not done so badly in the real world where Australia's defence outcomes are measured. Instead of defending the air-sea approaches to the continent, the Australian government has dispatched RAN units to fight wars in the Middle East, to provide security during conflicts in the region, to assist those requiring humanitarian aid, to stand-by for emergency evacuations of our citizens in foreign lands, and to help protect our sovereignty. The truth is that many of the roles and tasks of the RAN are enduring. The future RAN will need to do more of the same, only better. While some see evil everywhere—with major powers looking longingly at Australia waiting for a chance to conquer all, the liberal-democratic view is that our friends, neighbours and distant powers would gain more through cooperation than through conflict. What Australia needs is a Defence mission 'to be a force for good' at home, throughout the region and across the globe. The future force structure for the RAN must recognise this.

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[44] For example Frühling, 'Golden Window of Opportunity: A New Maritime Strategy and Force Structure for the Australian Navy', pp. 81-104.