The Future for Maritime Forces

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The 2013 White Paper provides a more sophisticated and nuanced analysis of Australia's maritime environment and security imperatives than its predecessors. While the resourcing of Defence capability remains of concern and there are issues to be resolved with particular force elements, the total force structure will provide government with a wide range of future options. This includes not only the emerging amphibious capability, but the range of force packages which can be provided by the Australian Defence Force as a whole. Further Defence reform will need to be undertaken with great care as to the support systems and material and human resources that the maritime front line units require if they are to be sustained. Another important aspect will be closer attention to the effective alignment of civil and military maritime capabilities through the adoption of a 'national fleet' approach for both ships and aircraft.

Towards a True Maritime Strategy

The opening chapters of the 2013 White Paper are thoughtful and well written and have profound implications for the future nature of Australia's maritime forces. The analysis of the maritime environment is more comprehensive than that of the 2013 National Security Strategy, which skated lightly over the relationship between the security of shipping flows and national and global economic development. More than any previous Defence White Paper of the last forty years, the paramount importance of maintaining those flows has been recognised.

The White Paper's identification of the complexity of the maritime security challenge creates a much better foundation for understanding the range of employment which the Australian Defence Force (ADF) may undertake, as well as the need for a diversity of capabilities to manage that range.[1] This is a step beyond the earlier debates on maritime strategy, which tended to focus too much upon the role of land forces in the littoral, rather than their operation as a key element—but only one—within a wider approach. There are, even within the ultimate Defence of Australia scenario, circumstances in which the ADF may need to protect vital energy shipments from within its own resources, but operations across the spectrum of conflict to provide for the wider protection of trade and essential materials in their movement by sea must inevitably be alliance and coalition based.

However, the combination of the linked, but not synchronised strategic policy documents of various departments has created discontinuities. The White Paper's strategic discourse could create the impression that Defence saw

[1] Commonwealth of Australia, *Defence White Paper 2013* (Canberra: Department of Defence, 2013), paras 2.6-12.

military capabilities as the sole contributor to the maintenance of Australia's maritime security. This can never be the case, and the next version of the National Security Strategy must address maritime issues in a way that highlights the shared responsibilities.

Whole of Government and a 'National Fleet'

Although Australia has much more 'joined up' arrangements for maritime surveillance and response than many others, progress has been slow on furthering the concept of a 'national fleet'. Not only should government's maritime responsibilities be considered as a whole and properly divided and shared, but the relevant air- and sea-borne platforms and systems should also be planned for in a fully coordinated way. There are operational and industrial issues involved and significant potential benefits. The current Customs and Border Protection Service project for Cape class patrol boats, for example, leverages off the Royal Australian Navy's (RAN) earlier Armidale class design—of which it is a much improved and slightly enlarged version. Its introduction into service will be managed at a time when the Armidales are relatively mature. The White Paper's decision on the nature of the Armidale follow-on was arguably made that much easier by the Cape class project. This echelon approach will need to continue. It reduces the risk of gaps in capability while also smoothing the flow of work for the shipbuilders.

The decision to retain the multi-role vessel Ocean Shield and transfer it to the Customs and Border Protection Service in 2016 is another example of taking a wider, if somewhat opportunistic view.[2] Such efforts need to be placed on a more systematic basis, including consideration of the balance between the civil and military effort. This needs to be judged not on the basis of platform size or system cost as such, but whether the capabilities involved provide government with the wider range of options and greater flexibility of use in civil or in military hands.

The holistic approach to maritime requirements will also help identify Australia's major areas of concern in the maritime domain. The brief analysis of the Antarctic was perhaps the weakest element of the strategic discussion within the White Paper.[3] The declaration that military operations within the region are unlikely during the next few decades was not only more sweeping in its tone than may have been intended, but also ignored the fact that some military assets—particularly future long range unmanned aerial vehicles—may well be employed for a wide range of circumstances and in the relatively near future. Thus, while the lead on Antarctic matters should remain a civil one, Defence does have a stake and needs to have an awareness of events and the ability to support national policy. Given

[2] Ibid., para 8.58.
[3] Ibid., paras 2.76-77.

Australia's claims in the continent, Australian Government presence in the area should be on a scale to ensure that Australia's voice is at least heard within the inevitable international debate that looms over the future of the Antarctic Treaty regime. Furthermore, given the importance of environmental protection, it is likely that the public will demand the demonstration of Australian presence in the event that the race for natural resources takes on an Antarctic dimension.

The Force Structure and High Intensity Operations

In terms of the ADF's capability for higher-intensity operations, the 2013 White Paper reaffirmed the overall force structure priorities laid down in 2009.[4] While the language employed is much more careful as to time and money, it sustained a fundamentally maritime focus. The priorities of undersea warfare, anti-submarine warfare, surface maritime warfare and air superiority, as well as intelligence, surveillance and reconnaissance and cyber security make it very clear where the ADF recognises that there is work to be done. Taken together, they also make it clear that the overall capability for maritime operations is dependent not only upon the networking of combat platforms, but the effective operation of remote sensors and communications.

Anti-submarine warfare in particular is a theatre problem, in which overall force dispositions as well as operations at the tactical level rely upon both intelligence and sophisticated environmental assessment. In this context—although the requirements extend much further than anti-submarine warfare alone—much more could have been said within the White Paper about the interaction between air and surface elements. This reflects the historical tendency of such documents to frame their discussion in terms of individual platforms, rather than as elements of a total warfighting system or in relation to both civil and military requirements. The faults of this approach apply particularly to the sections dealing with aviation, a key component of the ADF's maritime effort. The replacement of the maritime patrol capability of the ageing AP-3C Orion aircraft will involve difficult choices.[5] Some of their work can be conducted by unmanned aircraft, but the P-8A Poseidon will provide a combination of sensors and weapons that no other platform can match. However, the unit cost of military aircraft of such capabilities is approaching that of substantial warships and Australia will be unable to acquire the Poseidon in the same numbers as the Orion. There may be too few for the missions required. No matter how capable, an individual airframe can be in only one place at the one time.

It is difficult to escape the impression that political preoccupation with the air combat succession problem has obscured the advance in maritime capability

[4] Ibid., para 8.3.
[5] Ibid., paras 8.86-87.

that results from the new Wedgetail aerial early warning aircraft in concert with the modernised guided missile frigates and the future Hobart class destroyers. For the first time in many years, Australia has the potential to deploy a 'total maritime force', whether for self-defence or as a contribution to a regional coalition. Our ability to provide such a force package—and, one hopes, to sustain it—will be one of the most significant contributions that Australia will be able to make to any future maritime combination with our regional partners. The ships, in future, will never come without the patrol and early warning aircraft, just as it is difficult to envisage maritime contingencies in which the aircraft will go without the ships. Furthermore, while the individual elements can be employed as niche contributions to a US-led effort, the emerging structure will allow the ADF to offer force packages and assume the associated operational responsibilities to levels rarely possible in the past. This can only be welcomed by the increasingly straitened United States Pacific Command.

Getting the Funding Balance Right

A number of factors need to be considered when answering the question whether sufficient money is being allocated to Defence. The short answer is not enough, even if the promises within the latest budget have been more encouraging. There are areas in which reform could free up funds, but it is also true that the full range of the requirements of a truly national and—to the degree necessary—'self-reliant' defence effort have been recognised by neither side of politics in the past. This lack of sophistication has been reflected in both busts and booms. For example, the ambitious funding targets of the 2009 White Paper were unrealistic in relation to the economic situation that has emerged. But Defence now balances on a knife edge if the hard won recovery of the last decade is to be maintained. From a wider perspective, the Defence estate has significant implications for Defence's maritime capabilities because of the resources it consumes. This nettle must be grasped by a future government, despite the electoral discomfort that may be involved. Confirming the future spending model in general must rank as one of the highest priorities for the next government and, if it is not to be at least of the size suggested in the latest budget, some very hard decisions will have to be taken—so hard the resulting misalignment of capability with the strategic situation will be obvious. The fundamental issue is not the size of the Defence budget in relation to GDP, but whether an increase in risk—and the accompanying reduction in strategic options—should be borne in an uncertain world.

The reliance of the RAN's front line units upon direct and indirect support raises the issue not only whether enough is being spent on capability, but whether the balance of that expenditure is right. What will be essential for future effectiveness will be careful attention to the sustained funding model—and to what that model is meant to provide. This problem extends more widely than resourcing the intelligence machinery or other elements which

achieve specific recognition in the White Paper's Chapter on Defence Reform. Providing the full range of human and material support is arguably the hidden cost of 'self reliance' and one that has not always—if ever—been paid in full by Australia. Many of the issues faced by the RAN in the last two decades have been the result of a 'perfect storm', in which the challenges of being a parent organisation to so many unique platforms collided with partially ideological and partially financially driven efforts to reduce both uniformed and public service support organisations in favour of out-sourcing. Although the RAN's difficulties were the most severe, similar problems have been experienced by the other Services. The effort associated with implementing the Rizzo report was as much to recover ground as it was to implement new concepts of governance and support.[6]

The proportion of expenditure on personnel and emerging capability requirements are creating pressure for a redistribution of funding. For the RAN, the challenge will be to sustain sufficient depth and breadth of technical expertise, in uniform and out of it. This endeavour will require sustained support from Defence as a whole and from future governments. Arguably, the RAN is operating on too narrow a uniformed personnel establishment and the task will become impossible if surety as to the civil expert personnel base cannot be maintained. This does not predicate a wholly 'inside government' solution, but it does require that a very long term view be taken. A future government must approach this with caution, particularly as many of the reforms have not had time to bear their full fruit. The approach being taken with the Future Submarine Project with its attention to technical skills is one that needs to be sustained for the whole ADF. Strictures as to the alleged size of the 'tail' by comparison with the 'teeth' of the ADF will not help if they are not based on a full understanding of the front line's requirements.

Fleet Replacement and Operational Service

Time has been bought for the Future Submarine Project with the insertion of an additional major docking cycle into the planned life of the Collins class.[7] It is easy to be cynical about this decision, but the general increase in warship (and submarine) service lives over the last two decades within Western navies has been disguised by the removal of so many units for purely economic reasons—and many of these ships have found a place in smaller navies. The 'bathtub' effect of higher maintenance with age can become too much to manage, but better designs and improved materials and preservation techniques have vastly extended operational life. Much was made of the state of the 40 year old amphibious ships which forced their decommissioning in 2011, but in the 1960s and early 1970s vessels much younger in years of service had frequently to undergo emergency dockings

[6] Ibid., paras 9.6, 9.21.
[7] Ibid., para 8.51.

to fix unexpected holes. As a rule of thumb, a combatant unit built in 2000 can expect a service life of between 30 and 35 years, whereas that of one built in 1960 was between 22 and 25 years.

There remains, however, a point past which new construction, however great the capital impost, is a much better bargain than maintaining an old ship. The RAN is rapidly approaching this point with its replenishment vessel, HMAS Success, which the government decided to replace in the White Paper.[8] This addresses what is arguably the most urgent force structure problem that the RAN faces. The increased logistic, medical, helicopter and command capabilities that a second replenishment unit would bring in place of the very basic and somewhat makeshift merchant conversion tanker HMAS Sirius would be a significant addition to the ADF's capabilities in many situations.

Foreshadowing the earlier replacement of the Armidale class by a specialised patrol vessel was recognition of the stresses being experienced under the current operational regime.[9] It also reflected the lack of funding within the Defence Capability Plan for the more ambitious multi-role vessel projected to replace the mine-counter measure and hydrographic fleets. The upper limit of 2,000 tons (1200 was always more likely) set out in the 2009 White Paper was taken too literally by many. The real purpose of the single platform project was to reduce not only overall build cost, but also the through life expenses of maintenance, logistic support and training. It was always unlikely that the vessels involved would change their specialist employment other than by exception. The single platform remains a holy grail for the RAN, but it is for the long term. In the meantime, both the Collins submarines and the Anzac class frigates are likely to see much more service. The latter will have the benefit of the CEAFAR radar and its associated new combat system. These provide the ships with a quantum improvement in their capabilities against anti-ship missiles.[10]

In terms of RAN force posture, the practical difficulties of permanently basing major units in northern waters, effectively cutting off direct access to industry, are such that they do not bear further consideration. The Force Posture Review also highlighted the findings of an earlier study that the Navy's needs for deep water berths at Garden Island in Sydney are incompatible with those of the cruise industry.[11] This will require some original thinking—and expenditure—by a State government whose predecessors for too long 'boutiqued' the limited capacity of the other deep water areas of outer Sydney Harbour.

[8] Ibid., para 8.59.
[9] Ibid., para 8.56.
[10] Ibid., para 8.54.
[11] Ibid., para 5.40.

Submarines and the Way Ahead

The decisions on the Collins class replacement show that thinking has crystallised on the practicality of off-the-shelf designs, none of which are of sufficient size.[12] A coherent debate on the requirement is difficult within the unclassified domain, but some points must be made clear. Even in a purely defensive strategy, conventional submarines have to be employed in a tactically offensive role and must therefore be forward deployed. Their limited speed (and inevitably limited numbers) mean they have to go where an enemy must be and go, not where he might come. Thus, although there are legitimate arguments as to the range of potential operating areas for our submarines, they must at least have the capacity to operate within the archipelago to our north, an operating environment which itself poses significant challenges for both passage and submerged endurance.

Arguably, the only unique thing about Australia's requirement is endurance within a conventional design. This dictates where the focus of attention must be and where we need help from our partners, particularly the United States. The arguments to continue with the American combat system and torpedo development programs are likely to be compelling. They provide surety of function which other manufacturers find it increasingly difficult to match, given the costs involved with development, trial and testing. Despite the potential of some remote sensors to 'see through' the seas, for the foreseeable future submarines will be the most covert maritime platforms, with an unmatched ability to create a level of threat and uncertainty for the adversary. It is also likely that submarines will benefit from symbiotic relationships with future unmanned undersea vehicles, particularly as the software and power issues faced by these complex machines evolve.

The Amphibious Capability

The RAN's new landing and helicopter dock ship HMAS Canberra will soon begin her trials and will be followed soon afterwards by HMAS Adelaide. From the strategic perspective, the new amphibious force will provide improved access within the region. Where the ships themselves cannot go, their helicopters and landing craft will extend the ADF's reach without the need to rely on others, or upon developed port facilities and infrastructure. The decision to retain the landing ship HMAS Choules means that a key component of the total capability will remain in place.[13] The ship can lift large numbers of heavy vehicles, as well as substantial amounts of stores and munitions. Without her, HMAS Canberra and HMAS Adelaide have the capacity to put very capable battalion groups ashore, but limited ability to provide the resources that such forces consume in their operations.

[12] Ibid., para 8.50.
[13] Ibid., para 8.58.

Recent debate has begun to develop a more sophisticated understanding of the spectrum of amphibious operations, particularly in the relationship between their utility and the significant demands that even activities in a benign environment place upon the personnel and equipment involved. The employment of an amphibious group in a contested situation against sophisticated opposition remains not only one of the highest risk activities that the ADF could undertake, but also one of the least likely. Given potential adversaries in lower intensity conflicts, however, the capacity of the ADF to rapidly achieve over-match on entry will be vital and will demand the mastery by all involved of high intensity and closely coordinated operational techniques. It is this land-sea interface and the integration of the amphibious ships with their embarked forces that will require a learning curve. There will be a long haul from achieving the basics to being able to exploit the full potential of the amphibious group, although the ships and their embarked forces should be capable of much even in the short term.

Furthermore, one of the effects of budget cuts in the United States will be to increase the importance of the ADF's amphibious capability. US amphibious groups have been players in the majority of regional contingencies in recent decades but, if the reduction in forward deployments (one of the current major areas of US Navy cost reduction) is sustained despite the pivot to Asia, Australia may have to fill part of the gap. The White Paper's declaration that "initially" the amphibious effort "will focus on security, stabilisation, humanitarian assistance and disaster relief" was perhaps as much a recognition of the strategic imperatives as it was a caution against expecting—or fearing—too much from the amphibious force.[14]

Conclusion

The 2013 White Paper provides a well argued analysis of Australia's strategic challenges and its position within a changing region that is fundamentally maritime in nature. It balances the realities of geography and economics in a sensible way and sets out a force structure which provides a very wide range of options, perhaps wider than the nation has ever possessed before. It leaves some questions of capability unresolved, but the key vulnerability clearly lies in the ability and willingness to resource Defence to the degree required.

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[14] Ibid., para 8.14.