

SUBMARINES IN AUSTRALIA'S FUTURE MARITIME STRATEGY

The following is an edited version of a speech given by Rear Admiral James Goldrick, AM, CSC, RAN, on 11 November at the Submarine Institute of Australia Conference in Fremantle, Western Australia.¹

My intent is to outline some key aspects of the role of submarines within Australia's future maritime strategy. I will explain how submarine capabilities will be significant to every element and stage of the implementation of that strategy. Let me add three riders. First, I do not intend to focus on detailed scenarios, but on concepts. Second, my discussion, so far as it relates to technology, will focus on what is available or nearly here. This is because it is the ability to exploit technology that provides capability and, however 'pure' the strategic concepts, their execution is defined by the extent and limits of the capability available. Third, I intend to focus on the warfighting roles of military forces in discussing submarines and national strategy. If we think of the span of maritime tasks as encompassing diplomatic, constabulary and military roles,² it is clear that submarines find most of their work – though not all – in the military and higher stakes diplomatic aspects.

The 2009 Defence White Paper

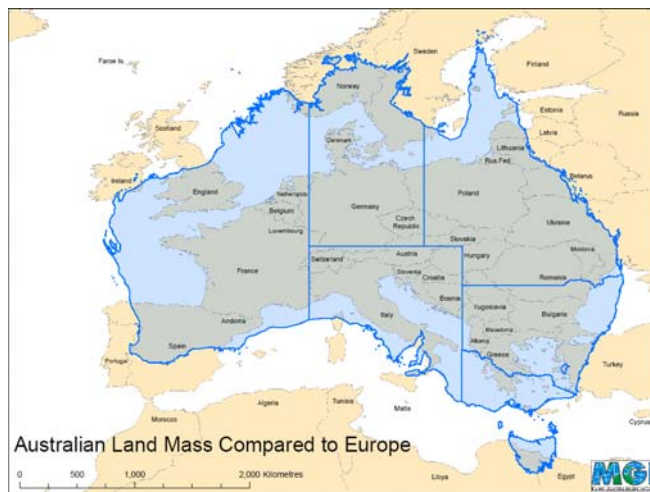
The 2009 Defence White Paper, Defending Australia in the Asia Pacific Century: Force 2030, lays down a clear requirement for the Australian Defence Force (ADF) to 'control our air and sea approaches against credible adversaries ... to the extent required to safeguard our territory, critical sea lanes, population and infrastructure'. This strategy does not entail a purely defensive or reactive approach. If necessary, Australia intends to conduct proactive combat operations against an adversary's military bases, staging areas and forces in transit. Our operations will be conducted to achieve as precise an application of force as possible in ways that the adversary is not expecting.

This is not a strategy of denial, but one of control. Increasing recognition of the importance of sea control has been a feature of the progressive development of Australian strategic thought and policy over the last decade. Of particular note, the White Paper specifically mentions not only territory but 'critical sea lanes', in which Australia has an interest. This interest was very recently reaffirmed by the Minister for Defence at the ASEAN-Plus meeting. The White Paper deliberately does not prescribe exact boundaries of action but declares that operations will be carried as far from Australia as possible.³

The White Paper lays out other aspects of our Defence strategy which will depend significantly upon our maritime capabilities, particularly at the higher level. These include the ability 'to contribute to military contingencies in the Asia-Pacific region, including ... assisting our Southeast Asian partners to meet external challenges, and to meeting our alliance obligations to the United States'. East Asia lives by seaborne trade, its population resides by or near the sea, there is increasing dependence upon

offshore resources and our dependence upon the quality of the maritime environment remains critical. Thus, it is highly likely that calls for Australian involvement in a contingency would have a significant if not a predominantly maritime element. Many of the requirements of such contingencies in terms of naval operations could well be similar, whether the situation involves the defence of Australia or our wider interests.

*The following discussion provides an over-view of those requirements without attempting to break them down into a 'national' or a 'coalition' situation. That said, it is appropriate to highlight the reality of Australia's strategic geography, summed up by Geoffrey Blainey's phrase 'the tyranny of distance'. Whether the military problem is within the immediate vicinity or further afield, **any** Australian military capabilities must possess substantial range and endurance to accomplish their tasking. Dealing with this reality is one of the central challenges we face in determining the form and size of the future submarine, just as it is for our surface and air assets. It is not something that is well understood by all in the strategic studies community or the media. Indeed it is arguable that one of the key problems with Australian strategic thought is not so much that it has often been 'continental' rather than 'maritime', but that it has been unconsciously founded in northwest European ideas of distance with consequential assumptions about strategic and operational reach and what is needed to achieve them.*



The Tyranny of Distance.

Submarines and the Network

*What will be the submarine's place in the implementation of the declared strategy? It is important to dispel one popular misunderstanding about the nature of submarine warfare – a misunderstanding relating as much to the submarine history as it does to their present and future. Submarines have seldom been 'independent' in action. Certainly, in terms of tactical engagements this has often been the case. But submarines in reality have **always***

been elements of networked forces and able to exploit their full potential **only** through their access to the knowledge network. Because of their nature, submarines benefit most from information which can be provided without the need to endanger their covert situation. This is particularly true for conventional submarines because of their more limited ability than nuclear powered units to reposition themselves to exploit opportunities. The better the picture that a submarine possesses the more likely it is that it will be in the right place at the right time.

The 'network' underlay both the Allied and the Axis submarine campaigns of World War II and it underlay the long and still largely unknown undersea campaign of the Cold War. The network underlies and will become even more critical to the execution of any operations which the ADF may undertake in the future. Submarines are, of course, also key contributors to the network through their own capacity to gather information, but providing such information, even with access to the most sophisticated of low probability of interception communication systems, also carries certain risks of detection. In many circumstances, submarines work best when they can draw quietly from a comprehensive surveillance, reconnaissance and intelligence picture which is externally provided.

Submarines and the Maritime Campaign

Submarines will have a vital contribution to make through all the elements of the maritime campaign, and here numbers do count. Whatever the contingency, it is clear that there will be demands from many directions.

As a situation develops, submarines will not only be able to act as intelligence gatherers, but also as potential signals of national resolve; signals which have the advantage of being ambiguous, which can imply a high degree of determination, but which do not irrevocably commit a government to the use of force. Both these missions place a premium on range and, particularly, endurance. The latter is not simply a matter of fuel capacity, but one which involves a whole range of other factors from equipment sustainability through to individual and collective human stamina. Such missions also benefit significantly from the greater unit availability possible in a large force because the known presence of one submarine in a particular area does not mean that other localities are necessarily safe for the potential adversary.

It is worth noting that submarines are more valuable as components of a balanced force. Their ability to complicate an adversary's problem is all the greater when there are other complicators – such as airborne and surface assets. The cumulative effect of complication may either confine or completely eliminate an adversary's options.

Submarines and Sea Denial

Submarines can thus contribute to the achievement of sea denial – preventing the adversary from using the sea for their own purposes – particularly if the opposition's undersea warfare capabilities are limited. If direct action is required, then submarines are potential minelayers, insertion platforms for special forces or land attack missile firers – and a ship at a wharf or aircraft on a runway can be targeted in the same way as buildings and permanent infrastructure. If the enemy does sail, then the submarine

can deploy torpedoes or anti-ship missiles. The more options that are available to the boat, the more effective it can be in closing off options to the enemy – a strong argument for a significant weapons capacity.

Submarines and Sea Control

In our strategic concept, denial will have a role, but generally one that is a subset of sea control. And again submarines have other parts to play in achieving the degree of control that will be required to use the sea for our own purposes. If necessary, they can provide cover for other forces by surveilling and patrolling focal areas. Their ability to remain covert for extended periods is particularly useful in these circumstances, as is their ability to develop a high level of understanding and awareness of what is taking place in the surrounding water mass. In sufficient numbers and operating in coordination, submarines may provide similar coverage for relatively large sea areas, acting to cover the flank of other operations.

Submarines also have much to offer when operating in direct cooperation with surface forces. Better communications, precise navigation systems and improved sensors are creating new opportunities for achieving direct support. Given the likely developments in networking, greater integration of surface, air and sub-surface assets is likely to be a key theme of future operations.

Submarines and Maritime Power Projection

As a launch platform for land attack missiles and special forces, the submarine is a unit for power projection in its own right. But my own view is that submarines will tend to deploy these capabilities more to ensure the free access of other forces into a designated area. They have particular strengths in dealing with anti-access forces, as well as assisting with precursor environmental assessment. Again, numbers count because such operations may be required not only within the intended locality into which, for example, a land force may be inserted, but further afield, to deal with forces which might otherwise intervene. Some operations can certainly be sequenced and separated, but the dynamic nature of maritime operations often means that denial, control and projection activities are taking place at the same time – and if necessary for extended periods.

Conclusion

This survey of the roles of submarines and their place in Australia's future maritime strategy has necessarily been broad brush. Nevertheless it should be clear that submarines form a key part of the execution of that strategy. Submarines represent an integral and abiding component of any defence force which seeks to exert any real measure of influence and control over conflict at sea, but it must be remembered that the maritime environment is too complex for any single asset, however sophisticated, to provide a universal answer.

¹ See www.submarineinstitute.com.

² See *Australian Maritime Doctrine: RAN Doctrine 1, SPC-A*, Canberra, 2010, Chapter 10.

³ Department of Defence, *Defending Australia in the Asia Pacific Century: Force 2030*, Canberra, 2009, p. 53.

