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The Royal Australian Navy in the 21st century

an address to the Institute on 30 June 2015 by

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Our sea lines of communication remain the lifelines for Australia's prosperity, but we face numerous challenges to their security. The Australian Defence Force is responding to these challenges by developing the capacity to deploy amphibious task groups, as well as standalone naval units, to trouble spots where warranted.

Key words: Australian Defence Force; Royal Australian Navy; sea lines of communication; maritime task groups; LHD; amphibious assault ship; HMAS *Canberra*; HMAS *Adelaide*; MH 60 Romeo helicopter; submarines; frigates; cyber; space; simulation.

In February 2014, the former Chief of Navy, Vice Admiral Ray Griggs, asked in a speech at the University of Sydney *"Does our national outlook allow us to meet the geo-security challenges of the Indo-Pacific?"*

"Australians have for over a century been obsessed with whom we are and where we sit both globally and regionally. Why is it then that as a nation we seemingly cannot come to grips with a really big but very basic idea – that Australia is an island, a maritime nation, one that is utterly dependent on the sea for its prosperity and security?"

Others have expressed similar sentiments: Professor Mike Evans has characterised Australia as a maritime nation with a continental culture; and Michael Wesley opines that we lack a maritime imagination. For me this strategic disconnect is at the core of any consideration we may give to the issue of geo-security from an Australian perspective.

Australia as a Trading Nation

Sea lines of communication remain the lifelines for Australia's prosperity as they have been since Australia was first founded. Today, close to 96 per cent of our trade travels by sea.

Australia now imports 91 per cent of its fuel as refined petrol. Australia relies on a single mega-refinery in Singapore for half its unleaded petrol supply. Australia has approximately 34 days of fuel reserve at normal usage.

We no longer hold reserves of basic commodities, preferring to rely on 'just in time' shipments of consumer goods and fuel to keep our economy running. A blockage in any of the main arterial routes that supply Australia will ultimately lead to an immediate and profound impact on the quality of life of everyone here at home.

Three of Australia's largest trading partners are in North Asia. Sixty per cent of our exports pass through the South China Sea as do 40 per cent of our imports.

Australia is part of a global commons, so we cannot

find our security at home – we must deliver it over the seas on which trade flows. We will achieve this by being part of a rules-based global order where the movement of trade is unimpeded as part of a wider global trading system.

Today, the crew of HMAS *Newcastle* are deployed to the Middle East helping to build the sort of stable environment upon which world trade depends. Through the Red Sea and Bab Al Mandeb and into the Indian Ocean; and along the coast of Somalia and Oman; the *Newcastle* does her bit in keeping the trade routes alive.

The waters off the Gulf of Aden witnessed 226 piracy incidents between 2009 and 2013. The joint efforts of navies in the region, however, reduced the number of such incidents to just four in the first half of 2014. Somali waters witnessed 435 piracy incidents in the five years (2009-2013), while three incidents were reported in the first half of 2014. These numbers indicate the very successful campaign that has been waged by the CMF², NATO, EU, Japan, Iran and China – all of whom who have acted in their national interest to protect trade.

In terms of suppressing the trade in drugs, which contribute to funding terrorist networks, our efforts in the region have been equally influential. To date, HMAS *Newcastle*'s total seizure is just over 1.3 tonnes of heroin, valued at approximately \$1.114 billion.

Challenges to the Security of Indo-Pacific Trade

While the combined efforts of all nations in the Middle East in suppressing piracy and the drug trade, and preventing the movement of terrorists, have been very successful, this is only one of a number of security challenges in the Indo Pacific. Navies have traditionally played a role in signalling intent, building capacity and confidence with friends, and shaping environments to meet our national interests. The Navy – indeed the entire joint maritime force – does not sit on a shelf and await the outbreak of conflict; it is involved in building the peace

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²CMF = Combined Maritime Forces; NATO = North Atlantic Treaty Organisation; EU = European Union.

with the same level of professionalism that it must bring to a fight.

Because there are only so many places a medium-size Navy can be, we must balance our commitments to ensure we are engaging in the right locations and with the right partners.

Our immediate region is undergoing tremendous change. The growth of China, India and the 'next tier' nations, and the resurgence of Japan and Russia, present a challenge to the regional security architecture. While no one nation presents an immediate challenge to Australia or our interests, the regional architecture needs to shift in recognition of changes in relative power, influence and national needs. Change can create an uncertainty that Australia has a legitimate interest in managing.

The South China Sea is a crucial area in which clarity of message is crucial. Australia has spoken clearly on this matter, along with many like-minded states at the recent Shangri-La dialogue where the Minister for Defence stated that:

"We remain concerned by any developments in the South and East China Sea which raise tensions in the region. Australia has made clear its opposition to any coercive or unilateral actions to change the status quo in the South and East China Sea. This includes any large-scale land reclamation activity by claimants in the South China Sea. We are particularly concerned at the prospect of militarisation of artificial structures."
"Disputes must be resolved peacefully and Australia urges all parties to exercise restraint, halt all reclamation activities, refrain from provocative actions and take steps to ease tensions, because when tensions are high, the risks of miscalculation resulting in conflict are very real."

The Australian position on the South and East China Sea is clear. We will support measures that promote peaceful resolution of the dispute and ensure the rule of law and the freedom of navigation. The Australian Defence Force (ADF) will operate in such a way that supports the government's policy and works with friends to further this objective

However, it is equally important that we do not reduce the complexity of the Indo-Pacific down to a series of flash points. There are more challenges and opportunities that we need to address. The growth of Indonesia, the increasingly engaged India and Japan and the importance of traditional friendships, including with Singapore, add depth to the Australian engagement in the near region. Each of these relationships depends upon vibrant and meaningful interactions to consolidate the strategic intent.

Despite fluctuations at the political level between Australia and Indonesia, the military engagement has been measured and relatively steady. Indonesia will soon have an economy larger than Australia, and like China it will seek to have the military power that matches its political and economic influence. As an archipelagic state, Indonesia will have a multitude of internal challenges, but many of Indonesia's national interests will overlap and abut our own. Being able to work effectively

with Indonesia in these shared zones will be an area of necessary growth for both nations. Our naval engagement starts from a solid but modest base, however initiatives such as the co-operative patrol regime, the most recent of which finished last week in Darwin, and the resurgence in the Navy-to-Navy exercise programme will support the wider efforts to add substance to the Indonesia-Australia relationship.

Both Japan and India are maritime powers. As these powers take increasingly prominent roles in the regional security architecture, the demand for engagement will challenge our ability to meet the opportunities presented.

Our near neighbourhood will remain a key focus for us. Many of our near neighbours are dealing with challenges as diverse as climate change, the growing pains of democracy, the challenges of natural disasters, and the transnational threats from areas as diverse as illicit drugs to illegal and unregulated fishing depleting fishing stocks. Our friends will continue to turn to us and other like-minded nations to provide assistance to see them through the turbulence of change.

An implicit assumption that has guided our strategic thinking has been the distance Australia is from points of contest. These distances are shrinking rapidly. Whether it is in the increasingly interconnected economies, the importance of cyber sovereignty or in the sheer physical congestion of the naval deployments, Australia is no longer remote. Last year's deployment of the Russian Navy to the Coral Sea, as well as a number of other less reported deployments in our immediate region, indicate that we are no longer out of the way.

A more subtle change is the way that powers in our region are increasingly acting in the maritime domain. The resources they seek, and the sea lines they want to protect, are all in the oceans of our region; and the biggest developments in their investments are in two areas: maritime capabilities; and cyber. If we seek to influence the outcomes of the changing environment, we need to do it on and around the sea.

The ADF Response

In short, there is no shortage of work for the ADF and we have to provide government with real choices in the maritime domain.

It is about becoming more joint, more integrated and more lethal – more credible if you prefer; and in making value decisions on where and with whom we engage.

Australia has been embarked upon this change for almost a decade and its manifestation, in some part, is the largest warship to ever serve in our Navy – the 27,500 tonne HMAS *Canberra* III. And the yet-to-be commissioned *Adelaide*, her sister ship, is due to join the Fleet before the end of the year.

Canberra is a wonderful new capability. For the next few years we will re-learn the art of operating in task groups, typically based around one of the LHDs³, and we will increasingly harness the full potential of a joint force

³LHD = Landing-Helicopter-Dock amphibious assault ship (e.g. *Canberra* and *Adelaide*)

operating in a maritime domain. For too long, we have operated our maritime force as standalone assets, dependent upon the strength of the unit rather than the potential of the group to achieve influence. In the vastness of the maritime domain, the contribution of any one unit is literally a drop in the ocean; it is only when the forces are combined and enabled by a solid and protected network that the synergies of the maritime force are realised.

Our Amphibious Task Groups will be the hub on which the Fleet will turn, and while it will mean we cannot be in as many places at the same time, in those places we deem to have the most strategic import, we will be there with greater lethality, endurance and influence than ever before.

I should be clear at this point. We will still operate our submarines and surface combatants independently of the LHD when the mission requires it, but even when we do, we will seek to deploy task-organised groups rather than independently-deployed assets in order to maximise impact and increase the options available to government.

Challenges for the ADF

Our return to a task-group approach is one that is challenging all of us right now. We need to coordinate our maintenance periods, our training windows and align both the Navy and Army force generation cycles to ensure alignment. This is no small undertaking and is in itself a large operational – and to some extent – cultural change. An LHD without the landing force – be it a combat force, an engineering force or a medical force – is just a large sea training platform. Equally, an LHD with the landing force, but without the sea combat, logistic sustainment or pre-landing force of hydrographers and mine clearance operators is just a long ocean cruise for the land force.

The LHDs – or more appropriately our adoption of a joint expeditionary mindset – is challenging all services, including Air Force, which, in addition to providing the necessary air power around the force, provides critical capability to the LHD itself. The challenges are in the so-called simple things, such as introducing all the new capability ‘bricks’ in the form of aircraft and vehicles, and in the more complex decisions of where we will send the ship when it is ready to sail.

In many ways the LHD is the joint forcing function we have long needed. It requires a single strategic objective, needs to be commanded jointly, resourced jointly, prepared jointly and equipped jointly. There is no room for misplaced service egos – although it remains true that the foundation of a capable joint force is the skill of the contributing service-based elements. The LHD relies on the synergy that can only be achieved through a truly joint approach. It is a journey and one we embrace.

I have specifically delineated between what is a naval effect, a maritime strategy and a maritime force. We do not have a naval strategy; we have a maritime strategy and it is a domain that is not owned by any one service. The maritime is a context and it is expressed as a system rather than a line on the chart. A big challenge is in managing the pendulum swing of political correctness between the professional skills of the services and supporting Defence entities on one end, and the potential

synergy of a truly joint force on the other. If the pendulum moves too far from equilibrium, we undermine either the credibility of the joint force that provides the glue and synergy, or the service that provides the professional mastery. Getting joint right will be an ongoing challenge as we operate the LHDs.

However, the maritime task group is a fixed resource and we need to task it with the mindset of opportunity cost. The cost of one deployment is the alternative deployment foregone. Right now we have bids for almost three times the capacity of the LHDs in their first operational cycle. We are going to have to say no to some things that are of themselves important, but are less so when compared to other choices. Once we meet the challenge of moving from a Navy of independently-deployed assets, to an ADF capable of generating a joint expeditionary effect, how do we say ‘no’ to important tasks in a region full of challenges? A big challenge will be choosing where we employ the capability at a time when the need and opportunity in our region is vast.

Other New Naval Capabilities

The LHD is not the only exciting new capability that Navy has accepted. The MH 60 Romeo helicopter is now operating from Naval Air Station *Nowra*. It is an exciting new addition to the ADF’s anti-submarine warfare inventory and is an order-of-magnitude advance on the model it replaces. When coupled with the maritime patrol and reconnaissance aircraft, it will provide a step-change in our ability to control the under-sea domain.

Our region will be home to over half the world’s submarines by 2030, and the ability to operate decisively in the under-sea domain will be critical. The sea remains opaque, and we will continue to rely on our ability to leverage on our intelligence, surveillance and reconnaissance assets to trigger the presence of a submarine and then for us to use the advantages of a networked anti-submarine warfare team – submarine, aircraft, helicopter and ship – to localise and prosecute these potential threats. Building the network, and the proficiency of the operators in this network, will be a major challenge.

One of the ‘good’ challenges we face is returning our surface combatant and submarine fleets to full strength. In the submarine domain the changes created by the Coles review, and the attendant resources that it brought, will mean that at times next year we will be operating five boats and routinely operating four. The growth in our submariner work force has been steady, but it will remain a key focus as we start operating boats in the numbers we need to meet our operational challenges and grow for the future. Similarly, by the end of 2016, we will start to see the end of the Anzac Frigate anti-ship missile defence upgrade programme which has been a remarkable success, but has resulted in strain on the frigate force, as up to three of these ships have been in the upgrade programme at any one time.

The decisions government will make in the Force Structure Review and 2015 Defence White Paper will be particularly important as the next generation of frigate we acquire will likely be serving in our Navy until the late

2060s. It will need to embrace technologies that are emerging now, such as: all-electric drive; rail guns; large-diameter unmanned underwater vehicles; and laser weapons. It will also need to embrace new technologies that are as yet still theoretical.

Equally, the Force Structure Review and White Paper will consider critical decisions about joint enablers – an under-resourced but critical force element – and for the Navy replacement oilers and ultimately the replacement for our patrol boats one of the least recognised, but hardest working elements of Navy.

Ultimately though, as commanders, it is for us to examine how we can turn our 'competitive advantage' against an adversary. For the Navy, this advantage will be drawn from the strength of our alliances, our ability to deploy as a joint force sustained by a single defence team, simulation, space, and the quality of our people.

Being able to operate collectively adds not only operational capability but collective moral authority to our actions. Our relationships with allies and friends lie at the core of our ability to retain influence over the span of the Indo-Pacific region, and provide operational insights and capability enhancements, that we may otherwise lack.

Space provides the ability for us to network and leverage the potential advantage of computing systems. These systems will need to be hardened from cyber intrusion. When we are successful, our ability to leverage the C4I⁴ potential of space-based systems, our ability to control the information battlespace and gain decision superiority, is an immense advantage.

Increasingly we will take advantage of simulation to prepare our people to the highest possible standard. Our use of simulation is potentially the fulcrum by which we will effect the strategy to deliver on our potential as a Fleet. Rather than using our ships as floating classrooms, simulation will provide the means to unstick congested training pipelines and achieve the intensity of training we need.

Our young warfare officers in the past earned their credentials by standing on the bridge and moving from notebook to chart and finally to pelorus for the final test. Now they will achieve what used to take nine months in about four months by being posted as a class to the Gatacre (Bridge Simulator). Operating this simulator as a concentrated training environment, officers keep watch in the Gatacre in sea watches and experience a progressively demanding series of challenges, mentored by former navy commanding officers and current navigators. This training is challenging, intense and realistic, with the net result of us producing more officers to a higher standard in less than half the time. We are in the process of rolling this training out to the medical, engineering and aviation communities and we will seek more opportunities to continue this programme.

Another example is in the way that we train our ships. A typical threat to our ships involves a weaving cruise missile that travels at 2-4 times the speed of sound and, in the terminal phase, is less than 12 metres above the surface of the ocean. This weapon will have more kinetic

effect than a cruiser's broadside when it hits. Through simulation, we can link ships alongside and at sea and expose them to the sorts of contemporary challenge they will face if called on to go in harm's way. Only through simulation can this be achieved.

Conclusion

For those that lament the failings of the current generation, all I can say is come and see our men and women – they make you proud to be Australian, and proud to be a sailor. Their sense of self, their sense of nation and the price they are prepared to pay so that you can enjoy a secure nation and benefit from 'just in time' goods is humbling.

Our major challenges this year in delivering Navy's mission to fight and win at sea are to:

- transition from a single ship to a joint task group mentality – integrating new capability into a genuinely new way of business, not just new platforms doing business the same old way;
- shape our regional commitments to meet government policy, based on the emerging security trends in the region and on the paradigm of opportunity cost;
- retain a balanced approach, ensuring competency across the spectrum of conflict – from diplomacy, to disaster response and constabulary operations, to combat;
- harness the potential of our people and our competitive advantages so as to provide the synergy needed to be the best medium-sized navy in the world; and
- double the overall tonnage of the Fleet within a decade, improving our stewardship of the platforms, and meeting increasing demand, while shrinking the workforce.

It is Navy's role to defend Australia beyond the sight of the shore. We create the conditions by which all Australians prosper. We do so as an independent and sovereign Navy – excited by our future, indebted to those that shaped our past, and committed to leaving behind us a Navy able to fight and win at sea, and thereby continue to serve our nation.

The Author: After joining the Royal Australian Navy in 1984, Stuart Mayer became a Seaman Officer, specialising as a Principal Warfare Officer (Direction). He served in HMAS *Sydney* during the 1990-91 Gulf War and in HMAS *Adelaide* in support of East Timorese independence. In 2002, he assumed command of HMAS *Canberra*. In 2004, promoted to Captain, he commanded Task Group 58.1 in the Northern Arabian Gulf. He assumed command of HMAS *Anzac* in 2007 and deployed to Southeast Asia as commander of the RAN Task Group. In 2009, promoted to Commodore, he commanded the International Stabilisation Force (ISF) in East Timor. In 2010, he became Commodore Flotillas, then Commodore Warfare at Fleet Headquarters; and subsequently was chief-of-staff of Navy Strategic Command. He was promoted to Rear Admiral and assumed command of the Australian Fleet in June 2014. [Photo of Admiral Mayer: Department of Defence].

⁴C4I = command, control, communications, computers and intelligence