

Chief of Navy Speech to Naval Warfare Officers Association

Every generation of Navy faces its own challenges. I know that was true when you were serving. It still is.

Today I wish to talk to you about some of the challenges and opportunities which are uppermost in my thinking at the end of this eventful year, in this still young century.

I speak to many audiences. They are often very unfamiliar with the complexities of a modern Navy, our ships, our capabilities and especially our acronyms!

It is therefore a great pleasure to speak to friends and colleagues who are well schooled and experienced practitioners of the naval operational arts and who share a professional understanding of what Navies are for, and what, uniquely, we can bring to the fight.

Earlier this year I named my Strategy for Navy **Plan Pelorus** and I commissioned a short DVD to illustrate where we are now and where Navy needs to be when I complete my period as CN in 2018. It will set the scene for what I want to talk to you about.

(Play Plan Pelorus DVD)

The Future Fleet

As you saw on the DVD we are recapitalizing the fleet and the Government is engaged in the acquisition process for our new ships. The new Defence White Paper will set out the Government's plans for the Navy in detail.

We have our two *Canberra* Class large amphibious ships. *Adelaide* will be commissioned in December. These vessels are game changers for the Navy and the ADF.

Since the DVD was made we have launched the first of our three *Hobart* Class Air Warfare Destroyers. The second, *Brisbane*, is preparing for launch and the third, *Sydney*, will have her keel laid next month.

Their Aegis combat system and SM2 and Evolved Sea Sparrow missiles with an MH60 Seahawk Romeo will make them most capable surface ships we have ever operated.

They will be with us for a generation.

These ships will be the escorts of a future RAN Task Force. It is a generation since we have been able to speak of having our own Task Force. We are building the ships which restore that concept to reality.

But this future Task Force will be network enabled, not always in line of sight and each ship will be a component of a distributed lethality weapons

system. It will often be a component of a larger coalition or Alliance formation but can operate as a self sufficient Australian national response.

Competitive Evaluation Process

To build that fleet and ensure we make the right choices we are engaged in a Competitive Evaluation Process.

Defence will be seeking proposals from potential partners to build Submarines, Future frigates, Offshore Patrol Vessels and Logistic ships. Let me update you on where we are for each of those.

SEA 1000 The Future Submarine Capability Criteria

- Pre-concept designs are based on meeting Australian capability criteria;
- Options will be considered for design in Australia, or a hybrid approach;
- Rough order of magnitude costs and schedule for each option are required ; and

The Government has endorsed a set of key **strategic requirements** for our future submarines:

- Range and endurance must be similar to the Collins Class submarine;
- Sensor performance and stealth characteristics must be superior to the Collins Class submarine; and

- The combat system and heavyweight torpedo jointly developed between the United States and Australia will be the preferred combat system and main armament

Next year we will know which of the available designs we will be chosen and the arrangements for Australian partnering with the successful proposal.

SEA 5000 Future Frigate

On 4 August the Government announced:

- the Future Frigate programme will be brought forward.
- a continuous onshore build programme will commence in 2020 – three years earlier than scheduled.
- The Future Frigates will be built in South Australia based on a Competitive Evaluation Process, which will begin in October 2015.

The terms of reference and scope of work are being prepared by Defence for this CEP. An **Analysis of Alternatives** is currently being executed by the RAND Corporation to identify potential designs for the Future Frigate.

A feasibility study for an evolved AWD candidate for a future frigate has been completed.

This study assesses whole of life benefits in maintaining commonality of platform and systems with the AWD inventory.

SEA 1180 Offshore Patrol Vessels

We will order Off Shore Patrol Vessels to progressively replace Armidale Class Patrol Boats.

They will be more capable ships than our Patrol Boats, carry a helicopter and have longer range and endurance than the ACPBs. The Government OPV announcement in August stated:

- The construction of Offshore Patrol Vessels to replace the Armidale class patrol boats will be brought forward by two years, with a continuous onshore build commencing in 2018 following a Competitive Evaluation Process.
- This decision will maintain around 400 skilled jobs that would otherwise have been lost.

That decision means we will be cutting steel for the first of class in just 36 months – a very tight timetable indeed.

However an **Analysis of OPV Alternatives** will assess existing off the shelf vessels with minimum changes. Defence will go to Government with the results of the Analysis in 2016 with up to three designs with indicative costs.

PROJECT SEA 1654 – Maritime Operational Support Capability

Two new fleet oilers tankers will be ordered to replace *Sirius* and *Success*. Unlike those two very different ships these future vessels will be sister ships - not orphans.

They will ensure that our ships remain at sea and available. **Availability** of the fleet is their primary function.

In addition they will be warships able to play their part in contributing to the overall combat picture and the **distributed lethality** which is the future modus operandi for our Task Groups.

These ship procurement decisions for submarines, future frigates, OPVs and tankers will determine what our maritime capabilities will be for a generation. **These decisions could not be more important.** We only get one shot at getting them right.

THEATRE ASW

Mention of **Distributed Lethality** leads me directly into the next subject which I want to discuss with you -**Theatre Anti Submarine Warfare.** .

The RAN's upgrading of ASW to being a primary capability reflects the fact that by 2030 about half of all the world's submarines will be operating in our near region. Power projection from the sub surface is a reality our defence planners cannot ignore.

Under these circumstances the concept of Theatre ASW is not just about defence of sea lanes - it is central to national defence.

In its simplest form Theatre ASW is about gaining undersea domain awareness through cooperation across navies using **all available means**, to be able to locate all submarines with sufficient fidelity to allow us to act where and when we need to, to maintain the initiative.

In referring to '**all available means**' I contend that this means everything from all source intelligence, alliance management, space based assets, P8s, towed arrays, such as the one likely to be carried by the SEA 5000 frigate, seabed arrays **and** but not exclusively, the numbers in your submarine force.

As CN I need to achieve effects rather than prescribe any solution which focuses solely on platforms. Navy needs to be able to create an effect which **deters and if necessary defeats submarines**.

Within an effects based regime, a meaningful contribution to Theatre ASW across a range of capabilities could lead to a disproportionate outcome in our favour, because it allows us to place our necessarily limited ASW capabilities in the right place at the right time.

So, I have now dealt with some of those acquisition issues that are uppermost in my thinking at present and how they can be operated to achieve the effects we need. Now we turn to the Navy as a National Enterprise.

Navy as a National Enterprise - Conceptual Architecture

At the recent Seapower Conference I addressed an audience of Defence Industry executives. The points I made to them relate to the **conceptual architecture** that enables our navies to meet traditional and emerging challenges with greater efficiency and effectiveness.

Those same points I made to them I now make to you.

In my view, the key elements of this new conceptual architecture are:

- the navy as a national enterprise;
- the navy as a system;
- the centrality of decisive lethality;
- deterrence as a consequence of that lethality;
- the importance of availability and sustainment, and, of course,
- affordability.

Individually, these conceptual anchor points are nice catch-phrases. But when we connect them up as a policy platform, their impact is profound.

I hope to demonstrate this later in this speech by unpacking what I mean by continuous naval shipbuilding.

The Navy of the future will be an intrinsic national capability, intimately connected to the social, economic, industrial and educational drivers of national well-being.

A modern navy is a national enterprise, bringing together the private and public sectors of the economy to deliver a fundamental national objective – security above, on and under the sea.

The Navy as a System

For the navy to revisualise itself as a national enterprise, both promoting and protecting the national interest, it is critically important that we see ourselves as a fighting system, not just as a collection of platforms.

This is not, of course, an entirely novel idea – the most successful of our operational predecessors have always grasped that instinctively.

What I am driving at here is synergy as a core doctrinal concept, whereby decisive lethality is delivered by our entire system operating in a focused, networked and “joined up” way.

This means that our civilian intelligence personnel, our dockyard workers, our naval architects, our enlisted and commissioned personnel act collectively to maximise the strategic effect of our platforms and their capabilities.

Lethality and Deterrence

Now to understand this properly, I need to briefly discuss some key strategic themes.

Some might think I am being too academic, but I'm not; bear with me.

Its all about lethality and deterrence.

Ultimately our government wants to deter conflict and contribute to the maintenance of peace and security around the world.

They can only achieve that, however, if they are able to deploy **decisive lethality** to sanction anyone who might wish to use armed force against us.

Lethality is the ultimate purpose of the navy. Fear of the consequences of that lethality is what deters armed adventurism – deterrence is a consequence of lethality.

Lethality is the ability of Navy's fleet to generate decisive outcomes in conflict.

This is relatively straightforward. But often the word is used without comprehending its implications for the manner in which we design, operate, and sustain our maritime capabilities.

I gave an address in the US in April, where I discussed the core issues of deterrence and lethality and their inherent interconnection to the legitimacy of government.

As I said then: Navies are a manifestation of purposeful government.

And the defence of our nations' legitimacy, authority and credibility in the 21st century depends on our ability to project strategic lethal force over, on and beneath the sea. Lethality is the key to our nations' ability to wage war.

The great advocates of the interface between sea power and national power, Alfred Mahan, Julian Corbett and Herbert Richmond knew this!

Carl von Clausewitz explained in his treatise 'On War' that to introduce a principle of moderation into war would be an absurdity.

Admiral Jackie Fisher wrote that: "restraint in warfare is imbecility."

My point is that the constant that underpins the state's ability to continue policy by other means is the armed force available to it **and its willingness to use that force.**

Deterrence, and for that matter, sea control, power projection and naval presence are all consequences of the state's ability to deliver strategic lethality, either singularly or in coalition and for opponents to be very sure that under certain circumstances our Government will use it.

The fifth Generation Navy we are planning and which I outlined earlier will deliver the requisite lethality to meet Australia's objectives now and into the future

Now all of this may seem esoteric if you are only interested in building ships. But my next point is that it is also all **about availability and sustainability of the fleet.**

Availability and Sustainment

I can have the best weapon system in the world, but it is useless if it can't leave the wharf.

Deterrence can only have its effect if our ships can sail; if our submarines can dive; and if our aircraft can fly.

Without forces available for tasking, Government can't fulfil its global objectives; it can't contribute; it can't deter; and it definitely can't defend.

So let's move to the business part of navies. We need to talk about availability and sustainment.

My first point is this. It is my role to ensure that the strategic purpose, operational concepts, and capability requirements are **designed into** our ships and aircraft.

I make the clarifying point that lethality also extends to the manner in which we sustain our maritime capabilities. This is of fundamental importance.

The efficacy of our sustainment arrangements is essential to our ability to generate both availability (the ability to be at sea) which we call Seaworthiness , and capability (the ability to achieve assigned missions), which we call Battleworthiness.

The availability of our future fleet will depend on a new **enterprise approach** to acquisition and sustainment that Navy, the Capability Acquisition & Sustainment Group, and industry will need to develop and uphold.

Of course, robust sustainment arrangements need to be complemented by the reliability in the first instance.

This points to the fact that we must build sustainment into both the design and operation of our fleet.

If I have a criticism of the rhetoric of the past few decades, it is that it focused too much on theoretical capability without due recognition of the capabilities actually available. I aim to change this.

The obvious question is “How do we do this?” How do we ensure that we can manage our assets to deliver to government the forces necessary for our national security.

There is no one answer, but what I can tell you is that there is a growing appreciation within Defence that different capabilities need to be managed in different ways to ensure success.

Moreover, there is a growing appreciation that the effectiveness of the entire system cannot depend on any single point of capability failure.

Sailors everywhere know the importance of the adage “*don’t spoil the ship for a ha’penny’s worth of tar*”. This may sound like a statement of the ‘*bleeding obvious*’, but somehow too many people overlooked it over previous decades.

That is why we have been subject to review after review over the last thirty years.

This is where continuous shipbuilding comes to play.

Continuous Shipbuilding – Significance / Implications for Innovation

Continuous ship building is how the nation can ensure its naval vessels are acquired and sustained to guarantee preparedness. **It is about building evolution into availability.**

Continuous shipbuilding also provides certainty for industry not just for the life of one project, but for sustained capability into the future. It is an initiative of national significance.

Defence will shortly negotiate a way forward to reduce the depth of skills loss across the ship building workforce and mitigate against a "cold re-start" after the completion of the current three ship Air Warfare Destroyer program.

This is a significant strategic initiative for our Navy and for our Nation. The government has set the headmark, now we must steer the course we have charted.

We also know that we need to “ring on more revolutions” if we are going come up to speed and meet the demanding timeline set.

How is this different from before?

Now we’ve heard commentators talk of the success of the ANZAC project and how we need to replicate that project again. In some ways, this has merit.

But our future planning needs to do so much more.

The ANZAC Project was a success. But it started, then it stopped. It was an end dated project not a continuous program.

Continuous shipbuilding will place naval construction in the sinews of national industrial capability, giving real and continuing meaning to Navy as a national enterprise.

It is an opportunity for Government, Navy, Defence, and industry, working together, to cement the foundations of capability across the economy thereby creating an industrial inheritance for future generations of Australians.

As you all know, I am responsible to Government to provide trained, mission-ready vessels.

That means the ships, submarines and aircraft in the Fleet must be available when planned; their maintenance and sustainment must be conducted predictably, reliably, on time, and on budget.

As a result, industry will not only need to deliver the required levels of readiness but, will need to translate cost effectiveness into enhanced readiness.

Industry needs to bring to the Naval Enterprise the latest in effective techniques to improve affordability, such as Total Asset Management.

We in Navy have our share of responsibility for meeting this outcome.

Affordability

Both Navy and industry need to understand the long-term implications of systems and technology providing operational availability at an affordable cost. And industry needs to invest for itself; not just invest for the next project.

I cannot over-emphasise the importance of this point, because in my mind it is not just about the first ship to roll off the production line. Rather, it is about ship five; ship eleven; ship eighteen.

It is about innovation. It is about continuous improvement. It is about Navy and the Nation. It is about the future.

Continuous shipbuilding recognises that we truly understand the nature of systems on ships and how they impact our planning for sustainment and availability.

From the outset of design, industry will need to be aligned with this concept.

Benefits of Continuous Build Program

In addition to maintaining and developing industry over the long term, I want to highlight the important role that the continuous build program plays in supporting the delivery of innovation into the Naval Enterprise.

One of the greatest opportunities that continuous shipbuilding provides is the ability to look at analysis, design, construction and sustainment collectively, or, as I would prefer to describe it: thinking, designing and doing, not as a series of sequential activities, but as concurrent activities.

Continuous shipbuilding offers many cost effective opportunities to be innovative in the way we build and sustain our fleet.

However; let me inject a note of caution. We cannot disconnect from the fact that we will inevitably begin with a mature design.

Where we take benefit is in managing the system that supports that design - data recording, real time maintenance management, capability and systems evolution, the exploitation of disruptive technologies.

This is inherently about availability! Looking beyond the build, we must design for sustainment.

This means taking advantage of new technologies and systems, whether they are domestic or from the global market so that they can be integrated into both the build and sustainment activities.

This will enable the continuous building plan to evolve because, while the program will be enduring, the technology will advance.

To this end, I look to the Capability Acquisition & Sustainment Group, industry and the tertiary educational sector to help create a twenty-first century naval enterprise. This is about networked collaboration.

The continuous build plan provides a critical opportunity to reorient our national naval enterprise to address the strategic demands of the twenty-first century.

Basing

I now come down from the strategic level to the nuts and bolts of supporting this new fleet. There is one final important issue I wish to raise and which will need consideration and that is the question of basing.

Basing is ultimately about **platform maintenance, sustainment and availability**. The ideal naval base is one which is doing its job so well that its wharves are empty. Its ships are all “out there” doing their job.

We have some interesting decisions to make if we are going to sustain our ships and submarines from the bases where they operate.

For example it is a matter of fact that the future Navy will be physically longer than the current one. Our ships will be longer and there will be more of them necessitating more wharf space than we currently have.

An Air Warfare Destroyer is 147 metres long. The future OPV's will be 80 metres long whereas ACPBs are only 56 metres. The same number of OPV's will not fit where the ACPB have been berthed in Darwin and Cairns. They will also be too big for our Patrol Boats synchro lifts.

A larger number of submarines will need upgraded facilities and more wharf space at Fleet Base West. Consideration needs to be given to a new East Coast Submarine Base.

Decisions concerning basing are complex and we need to have the right match between our future seagoing platforms and our future shore side support arrangements.

Ideally we would train our sailors, qualify them at sea, provide postings ashore, sustain their ships and return them to sea all from the same home port.

As always we need to remember that the hardware, our ships, is 100% dependent on its software, our people. Every decision needs to be made with them and their well being and that of their families front and centre.

If we get that wrong our ships will be “stranded assets !”

Conclusion

So to conclude:

I believe that we are now at a critical moment in the history of the Navy. We have one opportunity to build the fleet that Australia needs.

We either realise it together, or our navy drifts off into the world of regret for what might have been and recrimination against those who failed to capture the moment.

Regret and recrimination do not feature in my operating lexicon.

The navy that I lead is innovative, imaginative and professional. It is also totally dedicated to the great national enterprise of protecting and promoting Australia’s maritime interests.

We have been providing this service to the nation for a century. You were all engaged in providing maritime capability for decades.

Here then is my concluding thought for you.

Nothing is certain in international politics but it is at least possible that in the next decade events at sea in our region will regularly remind all Australians that this island continent's security is now, as it always has been, predominantly maritime and that the Navy and the ADF are the final guardians of that vital national strategic interest.

Thank you