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The Royal Australian Navy Fleet – past, present and future

an address¹ to the Institute on 16 February 2010 by
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Rear Admiral Steve Gilmore, recently appointed commander of the Australian Fleet, outlines from whence the Fleet has come, its current capabilities and operations, and his plans for its future development.

I wish to express my sincere thanks to you for appointing me your Vice-Patron. I deem it a great privilege and I hope to be an active participant in Institute activities. Discussions and debate pertaining to defence policy, procedures and direction are of great value to our nation. Through your efforts there is growing public awareness and understanding of defence and national security issues; and I hope I might contribute to those deliberations today. I intend to take a quick look from whence the Fleet has come, discuss the Fleet of today, and present a prognosis on where we are headed.

Our Past

The Fleet has seen great change over the past decade. Alterations to the home porting of ships have moved our centre of gravity from Sydney to Perth, Darwin and Cairns, reflecting both the policy of two ocean bases (Pacific – Sydney; and Indian – Fremantle) and an increased need for ready access to northern operating areas. We have also seen the commissioning of many new ships, boats, submarines, air squadrons and units, making the current fleet the most balanced and capable since World War II. The operating tempo has increased and its focus has shifted to maritime security activities, both along our own border and in the Middle East. The past decade also has contained many highs, numerous challenges and several lows from which we must learn.

In the past, we have had some highly impressive capabilities, but there was an inability to consistently present capability across the full spectrum of maritime operations. For example, in the 1950s, we operated two aircraft carriers, but had only a small amphibious capability, and no submarine force, patrol boats, underway replenishment ships, or mine warfare force.

Over the 1960s, 1970s and 1980s, various components of fleet capability waxed and waned. We

introduced submarines from 1967, our mine countermeasures force peaked and troughed, dedicated patrol boats arrived but proved inappropriate for our unique operating environment, and we received a single tanker and later a second. We lost a tanker, then the remaining carrier and fixed wing aviation platform was retired, but gained a sealift capability (in the ex-carrier *Sydney*). Slowly, a true amphibious capability evolved.

In the last decade, we have introduced depth and breadth in our fleet capability. We now have credible surface warfare, sub-surface, mine warfare, amphibious, offshore patrol, aviation, hydrographic survey, and underway replenishment, in a coordinated form. There are some areas where depth can be improved and these are being addressed.

Recent Capability Upgrades

Amphibious ships

Over the past decade we have acquired an improved amphibious capability. In 1994, what were intended to be two training and helicopter support ships were purchased second-hand from the United States and underwent lengthy refit. A ship evolved with capabilities to which the RAN had not had access before – a landing platform amphibious (LPA). The turning point in their role was Australia's commitment of a large force to operations in East Timor in 1999. By the end of the mission, Army had recognised the need for and value of operations that came from and were supplied from the sea. We cobbled together a sea-lift force for East Timor, including the leasing of a fast catamaran ferry (HMAS *Jervis Bay*). We made great use of this sea-lift force – the role of the LPA had been born. Consequently, HMA Ships *Manoora* and *Kanimbla* were eventually commissioned as LPAs in 2000. These two workhorses since have routinely deployed in the Persian Gulf, Samoa, Indonesia, Papua New Guinea and throughout south-east Asia. They have performed tirelessly and impressively in tasks ranging from humanitarian assistance through to peace enforcement, and in high-end amphibious warfare exercises; and have become the foundation for our future amphibious capability.

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Surface combatants

Our surface combatant force has begun a capability transformation. A \$1.5 billion project has significantly modernised the Adelaide-class guided-missile frigates restoring their relative war fighting capability. They now have a new combat management system, new sonar, a vertical launch system for evolved Sea Sparrow anti-air missiles, a significantly more capable Standard Missile (SM) – SM2 has replaced the ageing SM1, new anti-submarine warfare torpedoes, a new electronic warfare suite, and upgraded sensor systems. They have moved from being ocean escorts to capable area air-defence ships, with commendable surface and anti-submarine capabilities. Also, the ANZAC-class frigates have continued to commission across the decade with all eight now subject to several capability upgrades that are realising their remarkable potential. The Adelaide and ANZAC frigates now provide a highly credible surface-warfare force that will lead us into the next generation of surface-combatant vessels.

Submarines

Much has been reported on the service provided by the Collins-class submarines. Over the past decade, considerable resources have been invested to realise the war-fighting capability of these generally impressive boats. Much was learned in the early days, albeit not without cost and reputation implications. With the close assistance of the United States Navy, we have begun to provide quite a formidable war-fighting system. Maintenance issues, however, have reduced availability and created the need for greater collaboration between Navy, Defence Materiel Organisation and ASC Pty Ltd. Personnel issues also have been a challenge, largely caused by the reduced availability of the boat and consequent training implications. Following the Moffatt review in 2008, a submarine sustainability programme is addressing key issues and we now have a significant number of people in the training pipeline. Together, these two initiatives should allow full crewing of four platforms by the end of next year.

Patrol boats

One of the most exciting recent changes was the decommissioning of the Fremantle-class patrol boats and the introduction into service of the Armidale class, which provide far broader capability and considerably improved habitability conditions for the crew. Based in Cairns and Darwin, they are now on continuous operations under Border Protection Command. The boat's endurance is up tenfold and it can cope with a highly impressive range of sea states. With inherent high rates of availability, Navy is multi-crewing them – there are now 21 crews in place to operate 14 ships, significantly increasing operational sea days generated [3600 days per year from 14 Armidales compared to 2700 days from 15 Fremantles]. Importantly, the Armidales can stay at sea for longer periods, reducing the time spent in transit to and from port – hence, more

time on operations. Electronic surveillance, a gyro-stabilised automatic gun, radars, and rigid-hull inflatable boats, ensure much improved capacity.

Logistic support

An innovative project, delivered on time and within budget, was our replacement replenishment ship, HMAS *Sirius*, commissioned in 2006. Originally a commercial tanker, it was upgraded and fitted with military hardware and software, and is now providing vital logistical support to deployed units throughout our region and globally. Her introduction into service was largely driven by evolving environmental regulations which demanded the retirement from service of single-hull tankers. The RAN operated the single-hulled *Westralia* and, whilst able to exercise a military exemption to this policy, Defence chose to fully comply – an example of Defence accepting its responsibility for environmental stewardship.

Helicopters

The RAN also experienced one of its greatest peacetime tragedies when a Sea-King helicopter crash-landed whilst deployed to Nias, Indonesia, on humanitarian operations following the 2004 Boxing Day tsunami. Nine ADF personnel lost their lives. It was not the RAN's finest hour – a reminder of the inherently dangerous circumstances in which the ADF operates and the imperative for full compliance with policy, procedures and standards. Some 256 recommendations from the Board of Inquiry have been implemented across Defence to ensure best practice and effective risk management and governance, so as to protect our people wherever they serve. Hopefully, we are now a better organisation as consequence of the tragic event.



A landing craft mechanical 8 (LCM8) discharging beach matting at Cowley Beach on 5 March 2010 during an amphibious landing exercise involving the transport ship HMAS *Manoura*, six heavy landing craft, the Australian Army's 3rd (Light Infantry), 16th Aviation and 17th Combat Service Support Brigades, and HMNZS *Canterbury*. [Photo: Department of Defence]

Fleet Operations

While these platform changes have been taking place, operations have been ongoing. The Fleet has been committed to a number of activities across the past decade, often at very short notice, demonstrating the readiness levels maintained and the highly professional approach of our sailors.

Navy has maintained a presence in the Persian Gulf since 1991 and a major fleet unit has been on constant watch in the Middle East since 2003. Additionally, the Fleet has been present in various operations conducted in Samoa, Sumatra, East Timor, Somalia, Cyprus, Lebanon, the Sinai, Iraq, Afghanistan and the Antarctic. These activities have been varied – maritime security, maritime interception, border protection, humanitarian assistance, disaster relief, peace-keeping and combat operations.

The RAN displayed its combat capabilities on 21-22 March 2003 during a Royal Marine assault on the Al Faw peninsula in Iraq. It was the first amphibious assault by the marines since the Falklands war in 1982, and the first Australian naval-gunfire support operation since the Vietnam War. Poor weather and competing tasks restricted tactical air support during the assault. Iraqi beach mining also hampered the landing of artillery and light armour. Four warships – HMAS *Anzac*, along with HM Ships *Marlborough*, *Chatham* and *Richmond* – poised offshore, provided highly accurate and responsive indirect fire for 48 hours. The geographic circumstance was particularly challenging. Poor visibility, considerable currents and shallow water necessitated pin-point navigation and close co-ordination among all units – at one point, the depth below *Anzac's* sonar dome was just 1.6 metres. Accurate fire was provided at near-maximum range, with friendly troops in close proximity. The fire destroyed fixed positions, broke Iraqi confidence and suppressed enemy activities, often at short notice.

HMAS *Anzac* was arguably the most effective ship – it mounted the most powerful gun and carried the most ammunition. Equally important, because of the RAN's long-term presence in the area, its understanding of the littoral environment was unsurpassed and enhanced its effectiveness in such trying conditions.

United States Rear Admiral Costello signalled the four ships as follows: "Congratulations to the warships HMS *Marlborough*, HMAS *Anzac*, HMS *Chatham* and HMS *Richmond* for your exceptional naval gunfire support to the 40 Commando's combat operations on the Al Faw peninsula. The superb ship handling displayed in maintaining station for 36 hours in restricted waters, strong currents and high winds, coupled with your accurate delivery of fire clearly demonstrated your absolute professionalism. Your well-tuned combat systems and highly-trained gun crews flawlessly completed 17 firing missions and delivered 155 rounds at maximum range with 40 Commando in close proximity. The speed in which you answered each call for fire provided the required support to ground

forces and ensured success in the Al Faw peninsula operation."

Of more recent times, HMAS *Toowoomba* thwarted a piracy attack against two merchant vessels, BBC *Portugal* and CMACGM *Debussy*, on 20 September 2009. The vessels were approached by a skiff which was later found to be carrying eight pirates armed with a rocket-propelled grenade, six AK-47 assault rifles and a G3 assault rifle. A large cache of ammunition was also discovered. The pirates were questioned, the weapons seized and the vessel marked for future identification. This action attracted praise from as far as United States Central Command in Florida. Furthermore, 'approach, assist, visit, boardings' conducted by *Toowoomba* significantly contributed to the Coalition campaign to build the support and confidence of local fishing and trade vessels, bolstered the intelligence effort, and exercised the boarding organisation in high-end boarding operations.

The Evolving Role of Fleet Headquarters

The expanding and changing role of Joint Operations Command recently has necessitated refocusing Fleet Command on 'raise, train and sustain' activities.

In 1996, Headquarters Australian Theatre was established in Sydney to command operations undertaken by forces from the Maritime, Land and Air components. In recognition that any operational activity undertaken by the ADF was increasingly joint in nature; was potentially of campaign dimension involving a theatre-wide approach; and that there must be a more distinct separation between the operational and strategic levels of command; Headquarters Australian Theatre and its commander brought together the planning and conduct of theatre-level operations. The theatre headquarters was a small organisation at inception and relied on the contribution of staff from each of the 'environmental' – Maritime, Land and Air – headquarters. The component method of command was utilised at this point and one of the 'environmental' commanders would be appointed to lead the joint operation. Headquarters Australian Theatre was blooded during the East Timor operation and further evolution of the concept has continued over the last decade.

The concept was taken a significant step further with the establishment of Headquarters Joint Operations Command (HQJOC) in 2004. The headquarters remained in Sydney, but the commander was re-designated Chief of Joint Operations (CJOPS) and raised from two-star to three-star level. However, instead of creating a new three-star position, the Vice-Chief of the Defence Force (VCDF) was initially dual-hatted as VCDF and CJOPS. The 'environmental' commands and a number of other operational-level headquarter elements across the ADF were designated as 'components' of HQJOC. This meant, for example, that in addition to being responsible to Chief of Navy for

raising, training and sustaining maritime forces, the then Maritime Commander was also designated 'Maritime Component Commander' of HQJOC and was responsible to CJOPS for a range of operational issues.

Following an extensive review of ADF command and control by Major General Dick Wilson in 2005, HQJOC was re-structured and increased its staffing nearly five-fold in January 2007. The maturity of joint operations in the ADF and the considerable experiences achieved, enabled progression from the component model to that of a fully integrated staff – no separate Navy, Army or Air Force operational commands. The most significant changes to the now integrated headquarters were the creation of a 24/7 joint control centre, the establishment of five one-star level branch heads, and the expansion of the plans branch. In September 2007, a new separate three-star position was created for CJOPS. The VCDF position was then left to focus on more strategic matters.

A permanent headquarters at Bungendore, near Canberra, was occupied in early December 2008, and has seen over 500 staff from all branches collocated in the one purpose-built facility, the 'General John Baker Complex'. HQJOC now has taken responsibility for the planning and execution of all of Defence's operations and major joint exercises. This has absolved Fleet from operational tasking and command and control requirements – it is now focused solely on the 'raise, train and sustain' role. As the Fleet Commander, I am now required to generate Navy capability that is able to fight and win in the maritime environment. The range of capability required and the complexity and breadth of operations on, under and over the sea, makes this task both challenging and multi-faceted.

In line with this change in Fleet Command focus, the Navy has restructured as part of the New Generation Navy programme. This change has recognised that the generation of capability is more effective and efficient if managed by a single organisation. The Navy Systems Command had previously led all shore support and individual training along with human resource management, safety and certification, engineering and communication, health services and shore-based command. As the last Systems Commander, I can attest to the notion that such an arrangement, where the attention was on Fleet support, was less than efficient. The time was right and the change has occurred.

Systems Command was disestablished on 1 July 2009 and much of its function transferred into Fleet Command in order to create an end-to-end training and support organisation. There is now a single training continuum from recruit school to task force development. Navy's entire shore support organisation is now in the Fleet. The benefits from this restructure have already become most evident.

Fleet Command today comprises some 12,000 of Navy's 13,500 full-time personnel, has 55 ships and

submarines, three naval air squadrons, two clearance diving teams, 11 commissioned naval establishments and three regional naval headquarters. All Fleet support units, logistic support elements, port services, bands, along with heritage centres and museums, are part of the new Fleet Command structure. Fundamental to Fleet capability are people. A capability edge is most readily obtained via people who are highly trained, motivated, innovative, confident, trusted, determined and resilient. Strong leadership and a team ethic underpin the way in which our people will be a formidable collective.

The Future of the Fleet

What does the future hold for the Fleet? I believe the years ahead are indeed very bright albeit marked with considerable challenges as we increase training throughput, grow experience, introduce new capabilities and incorporate the Strategic Reform Programme. While I have already indicated that the current fleet is the most balanced in capability since World War II, an impressive array of new ships and aircraft are soon to join our ranks.

In 2014, we will see the arrival of the first Canberra-class amphibious ship or landing helicopter dock (LHD). Based on the Navantia Strategic Projection ship, at 28,000 tons displacement, the LHDs will be the largest warships to have served in the RAN. The ships will have a complement of 340, with an embarked force of around 1000 personnel. The length of the Canberra class will be 230.8 metres, with a maximum beam of 32 metres. As a comparison, the Navy's last aircraft carrier, HMAS *Melbourne*, had a displacement of 20,000 tons and the current LPAs are around 8,500 tons.

Having learned much from the flexibility present in the LPAs, the Canberra class will provide increased capacity that addresses all aspects of defending Australia as defined in the 2009 Defence White Paper – deter and defeat attacks on Australia; contribute to stability and security in the South Pacific and East Timor; contribute to military contingencies in the Asia-Pacific region; and contribute to military contingencies in the remainder of the world.

The 2000 Defence White Paper stated that the RAN would replace the Adelaide-class frigates with three air-warfare destroyers, under the *Sea 4000* project, from 2014. These ships will perform the same area air-defence role as the previously withdrawn Perth-class destroyers; the Chief of the Navy described their key capability as providing "a protective 'bubble' over whatever area they're working in", in which any hostile aircraft or missiles will be detected and engaged by the ship's combat systems. The consortium responsible describes the ships as capable of engaging enemy aircraft "at a range of over 150 kilometres". The combination of phased-array radar, Aegis combat management system, vertical-launch missile cells and SM2 weapons is a formidable one. The provision of land-attack missiles and upgrades to the SM6 weapons

as described in the Defence White Paper provide strike and defence capability beyond that ever had by Navy. The interoperability potential of the air-warfare destroyers with the new airborne early-warning and control Wedgetail aircraft, F35 joint strike fighters and KC 30A tankers present a coherent air-defence system for the ADF and deployed joint forces.

The ship chosen as the preferred air-warfare destroyer was based on the Spanish F100 class. The 6,250-tonne vessels will be built by ASC Shipbuilding at Osborne, South Australia, in an alliance with Raytheon Australia and the Defence Materiel Organisation. The first ship, *Hobart*, is scheduled to be delivered in October 2013, *Brisbane* in 2015, and *Sydney* in 2017.

The Fleet of the future is far more than the equipment we're purchasing. It is more about how we move into the future, and I wish to touch briefly on my intentions as Fleet Commander to prepare our fleet of today to meet the daunting requirements of the future.

Years of experience in the conduct of operations and activities at sea, in both peace and war, have taught our Navy that we can be confronted by demanding situations requiring complex teamwork and individual courage. Being individually able to consistently deal with complex, dynamic and sometimes confronting circumstances, will ensure our collective resilience. This does not come easily and requires a programme of activities that helps each of us to better understand ourselves and develop confidence in our actions and reactions. We must be a force which can outlast our opposition.

I believe that to move the Fleet forward and be the best that it can, requires simultaneous development. I have identified four areas which must be progressed to enable the Fleet to continue to meet our nation's expectations. The four areas are: people, platforms, procedures and passion ('4 Ps') – and I intend constructing, progressing and monitoring overall Fleet capability generation along these four lines.

The consequences of a lengthy period where our Navy has been short of trained personnel, combined with a considerable operating focus on specific activities such as maritime security operations, has had an affect on experience levels in particular disciplines and procedures. This is not surprising, but it demands attention if we are to guarantee future success across the broad spectrum of maritime operations that we may be called upon to conduct into the future.

We must conduct our 'raise, train and sustain' activities in a manner which brings into balance and exploits opportunities to effectively progress our '4 Ps', while also growing experience levels across the Fleet. While not simple, greater coordination of effort will underpin the progression of training and experiential development of our people.

The development of a Fleet Operating Concept that balances these areas is therefore a high priority for me.

This concept must focus on quality and not quantity of sea days where our assets are more routinely concentrated to aggressively pursue training outcomes in an environment that consistently offers professional development opportunities. The concept will mean we optimise every week, every day, every hour at sea. Ships will be in company and will be in training from the moment lines are passed. We must work smarter, not harder, if we intend to keep, retain and sustain our forces.

Conclusion

My vision is a Fleet that routinely delivers the highest quality capability against all directed requirements, through well-trained, experienced and motivated personnel; consistently optimised platforms and systems; innovative, exploitive and effective procedures; and passionate people who are confident, caring, capable and resilient.

I have taken you on a canter through Fleet's past structure and role, looked at the present construct and capabilities, and given a brief prognosis of the more immediate future.

I am incredibly proud of the Australian sailor and all they have done, are doing and aspire to. Your Navy's Fleet is an evolving organisation that is changing with the times and provides this maritime nation with a sound capacity to fight and win if and when required. Thank you for the opportunity to tell Fleet's story.

The Author: Steve Gilmore joined the Navy as a cadet midshipman in 1977. After receiving his bridge watchkeeping certificate in 1983, he served in HMA Ships *Stalwart* and *Townsville*; qualified as a principal warfare officer with sub-specialities in gunnery and air warfare; served at sea in three Australian and British warships; became Fleet Gunnery Officer; and subsequently Executive Officer of HMAS *Melbourne*.

Promoted to Commander in 1996, he became RAN Liaison Officer to the United States Navy Doctrine Command; then served in Maritime Headquarters planning operations and exercises involving major fleet units, for which he was awarded the Conspicuous Service Cross; then commanded HMAS *Arunta* in 2000. Promoted to Captain in 2001, he attended the Defence and Strategic Studies Course at the Australian Defence College; before serving as Director of Maritime Combat Development in Defence Headquarters.

Promoted Commodore in 2005, he commanded Coalition Task Force 58, responsible for the conduct of all maritime security operations in the Northern Persian Gulf, for which service he was appointed a Member of the Order of Australia. In 2007, he became Commander, Navy Systems Command; was promoted Rear Admiral in June 2008; and became Fleet Commander and a Vice-Patron of our Institute in October 2009. [Photo of Admiral Gilmore: Department of Defence]