

“The Jewel of the East Coast”: The Case for Relocation of Royal Australian Navy Fleet Base East to the Port of Port Kembla



Prepared by RDA Illawarra on behalf of Illawarra
Regional Stakeholders: *Why Not Port Kembla?*

June 2015

Stakeholders



With Support From Commonwealth and State Members of Parliament:

The Hon Sharon Bird MP
Federal Member for Cunningham

Mr Stephen Jones MP
Federal Member for Throsby

Mr Gareth Ward MP
Parliamentary Secretary for Illawarra & South Coast Member for Kiama

The Hon Shelley Hancock MP
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Mr Lee Evans MP
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Mr Ryan Park MP
Member for Keira

Ms Anna Watson MP
Member for Shellharbour

Ms Noreen Hay MP
Member for Wollongong

Preface



The proposal to relocate the Royal Australian Navy (RAN) from Fleet Base East Garden Island to Port Kembla was first raised by me in 2006. Since then, the introduction of new ships into service and forecast future capabilities against a background of heightened security, have increased pressure for relocation to a more suitable site.

Accordingly, in October 2014 I presented a submission to the Defence White Paper in my capacity as an Illawarra based Senator advocating a relocation of the RAN Fleet Base East from Garden Island to Port Kembla (see Attachment A). This proposal supplements that submission.

As stated then, Port Kembla offers an excellent opportunity for the RAN to establish a permanent base and support facility for its eastern fleet at significantly less recurrent cost to the Commonwealth. Notwithstanding necessary infrastructure upgrade costs to be incurred, longer term savings would be made, including housing and personnel costs. The relocation proposal represents a generational opportunity for nation building infrastructure development and a demonstration of genuine decentralisation.

Regional business, industry and government stakeholders have collaborated to present the case for relocation to Port Kembla. It has the bipartisan support of the Illawarra's political representatives. The following sections outline the unique features of the Port and its location. The Illawarra region is a great place for staff to live and work, is close to Sydney, Nowra and Canberra and provides housing, education, health and lifestyle advantages including nautical recreation, regional city amenities, strong community and business networks and road/rail access to Sydney. A pool of skilled labour can be made readily available to augment existing service personnel.

I commend this supplementary submission to the Australian Government and the Defence White Paper process and urge that careful consideration be given to a transfer of naval activity to the Port of Port Kembla. The recommendations include an invitation to visit the Port facilities and I would be pleased to host a Parliamentary delegation and/or officials involved in the Defence White Paper for this purpose.



Message from the Lord Mayor

The Illawarra is NSW's third largest economy. Wollongong, the region's capital, is only a 90-minute drive south of Sydney and just one hour from the Sydney International Airport. Port Kembla is ideally located close to Jervis Bay and HMAS Albatross. The region has great connectivity internationally and nationally with proximity to Sydney and Canberra utilising proven transport and technology links.

The region's economy continues to diversify, renowned for world-class steel-making and coal mining industries, the city is also an important knowledge services hub and a centre for advanced manufacturing, mining services, ICT and is a leading university city.

NSW Ports' Port Kembla operation is supporting our diversification. It is developing into a major port and logistics hub, with a \$700 million Outer Harbour expansion set to continue over the coming years.


The University of Wollongong is also supporting the transformation. The University has a strong reputation nationally and internationally as a leader in education and research.

We've established ourselves as a knowledge services hub with a critical density of ICT, contact centres, business processing and head office operations in the Wollongong CBD, which is experiencing a significant transformation at present. The region is also benefiting from the State Government's investment in a Tier III Data Centre that will put Wollongong a mouse click away from Sydney.

The region is establishing a strong health and aged care industry. Growth in this industry is coming from both the public and private sectors, with the \$134 million expansion of Wollongong public hospital and a new \$120 million Wollongong private hospital, with more promised in the latest State budget.

Wollongong (as the region's capital) is one of Australia's major cities without the associated big city costs such as affordable housing, leasing and access to a culturally diverse skills base of employees.

With our pristine beaches in a backdrop of escarpment and rainforest, the Illawarra provides the Federal Government with an opportunity to invest in a location which provides an economic, social and strategic opportunity to meet the current and future needs of the Royal Australian Navy, their personnel and their families.



Cr Gordon Bradbery OAM
Lord Mayor of Wollongong
Chair, Illawarra Pilot Joint Organisation

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Executive Summary

This submission by Illawarra regional stakeholders (Illawarra Consortia) is supplementary to the submission by Senator Concetta Fierravanti-Wells (October 2014) to the Defence White Paper. An historic opportunity exists at present to engage in a bold initiative in nation building by relocating the Royal Australian Navy (RAN) Fleet Base East from its current constrained environs at Garden Island to the Port of Port Kembla with its abundant prospects including enhanced site/works capability, safety and security and personnel requirements. Each section that follows builds the case for relocation to the Illawarra as a viable option for the relocation of RAN's Garden Island operations. The region is contiguous with Sydney's Sutherland Shire to the north of Wollongong and incorporates the Shoalhaven district, home to RAN's existing installations at Jervis Bay, south of Port Kembla.

An initiative of Senator Concetta Fierravanti-Wells, the proposal represents a "one-voice" expression of the views, expertise and passion of multiple regional stakeholders, drawn together by the Illawarra's peak regional development body – Regional Development Australia Illawarra. The key drivers for relocation are understood to be both current pressures and future growth inhibitors at Garden Island including:

- Inefficient and costly maintenance due to significant time restrictions
- Residential encroachment issues of noise pollution and congestion
- Garden Island capacity constraints at berth and beyond
- Cruise ship industry growth competing for berth access
- Additional security considerations due to population density around Sydney Harbour
- Lack of affordable housing for key personnel
- Inability for strategic growth to accommodate Landing Helicopter Dock (LHDs), Air Warfare Destroyers (AWDs) and future submarines.

This proposal ensures that Fleet Base East operations remain in NSW with its critical mass of Defence spending, personnel and operations and frees up the valuable Garden Island precinct for alternative economic development activities, acknowledging the growing competing uses for Sydney Harbour, particularly from the cruise ship industry but also development of premium real estate. The Naval presence at Port Kembla would provide synergy with current operators while not compromising security or flexibility and represents a strategic fit with continuing development of the Outer Harbour. Access to skilled personnel and use of unutilised industrial land are also timely advantages for a relocated RAN facility.

While there are significant and diverse potential benefits to our transitioning regional economy, the Illawarra Consortia strongly believes that relocation to Port Kembla meets many State and Commonwealth needs for economic growth and Defence capability. Assisted by a supportive business community, adaptive and innovative manufacturing enterprises, complemented with the superior research capability of the University of Wollongong, Port Kembla provides an ideal environment for the RAN to build requisite skills and technology.

Proximity to other Defence facilities is also a compelling advantage for relocation, with the RAN's Australian Hydrographic Service already based in Wollongong, the Army Base at Holsworthy, a Naval Base at Jervis Bay, Albatross Technology Park at Nowra and with the Illawarra Regional Airport close by at Albion Park Rail and direct access to the south coast rail line terminating at Bondi Junction. It also has excellent road and air connectivity to Canberra and the ACT. In sum, key advantages to Defence of a relocation of operations to Port Kembla include:

- 24/7 maintenance capability
- Deep water Port, with 14 to 16 metres depth
- Significant Port Lands currently available or underutilized and structural adjustments to the manufacturing industry creating additional growth opportunities
- Strategic east coast location
- Ease of access and logistics / operational connectivity to and from Port Kembla
- Housing affordability and livability
- Access to highly skilled workforce and spousal employment opportunities
- Access to world-class tertiary education facilities and R&D capabilities

Recommendations:

The Illawarra Consortia recommends that:

1. The Port Kembla relocation proposal be given a fair hearing as a White Paper option, and is deemed a RAN relocation option in the Defence White Paper and other strategic Defence documents such as the 20-year plan;
2. The Commonwealth Government evaluates the case for relocating all or part of current RAN operations at Garden Island to the Port of Port Kembla and undertakes a feasibility and scoping study in consultation with Commonwealth and NSW State departments; and
3. That relevant officials, including the Defence White Paper team, tour facilities at Port Kembla and be briefed on the site's capabilities.



Natalie Burroughs
CEO
RDA Illawarra

1. Introduction

As a naval base and support facility, it is broadly recognised that Fleet Base East at Sydney's Garden Island is under continued and growing pressure to relocate from the Sydney area. While the pressure to relocate has intensified from the cruise-ship industry and property development, naval operational support drivers for the move from Garden Island will further intensify with the commissioning of LHDs, AWDs and future submarines, against a background of the growing threat to our Nation's security. The future needs of the RAN are paramount in discussion of alternatives.

Illawarra's key stakeholders are collectively endorsing Port Kembla as the new home for all or part of the naval fleet and operations.

"Port Kembla offers an excellent opportunity for the Royal Australian Navy to establish a permanent base and support facility for its eastern fleet at significantly less recurrent cost to the Commonwealth while also providing an ideal location in terms of logistics, engineering and operational needs." (Fitzgerald 2015)

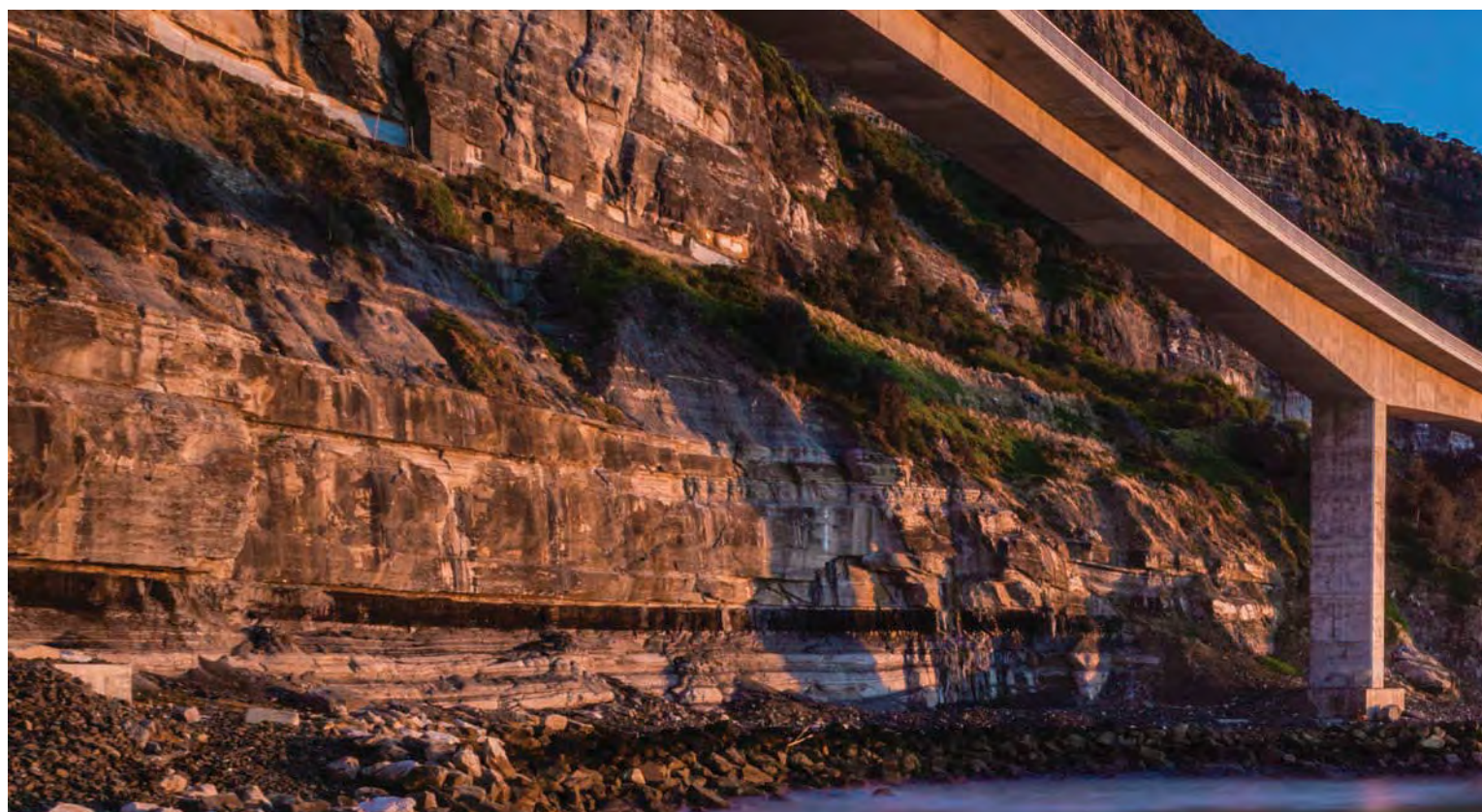
This submission to the Federal Government's White Paper process seeks consideration of Port Kembla on the basis of evidence of its suitability and potential capability and its positioning within the broader public policy sphere of National infrastructure and State economic development. With a deep and accessible harbour, existing structures and available fully serviced industrial land for infrastructure, Port Kembla's claims as a suitable site for a supplementary fleet base needs to be further evaluated.

Mr Neil James, Executive Director of the Australia Defence Association, concedes that "Port Kembla was a better option than other suggested locations like Brisbane or Newcastle due to its proximity to the Jervis Bay training area and the presence of engineering and logistical infrastructure". (Humphries 2014a)

Senator Concetta Fierravanti-Wells has suggested that the costs of infrastructure and relocation costs would be offset by longer term savings including housing and personnel costs and the opportunity cost of alternative land use at Garden Island. Port Kembla is close to HMAS Albatross and HMAS Creswell as well as the East Australian Exercise Area. Further advantages include lack of residential development close to the Port and the ease with which security can be implemented in terms of access control to the Port. Relocation would also complement current infrastructure development of the Outer Harbour. (Humphries 2014b)

Many Illawarra stakeholders have collaborated to advance this "one voice" case for relocation of RAN facilities and personnel to Port Kembla. Beyond technical capability of the site there are compelling advantages in relation to the region's business environment, labour market (including employment opportunities for the spouses of RAN personnel), mature services, excellent education facilities, affordable housing and an enviable coastal and escarpment lifestyle.

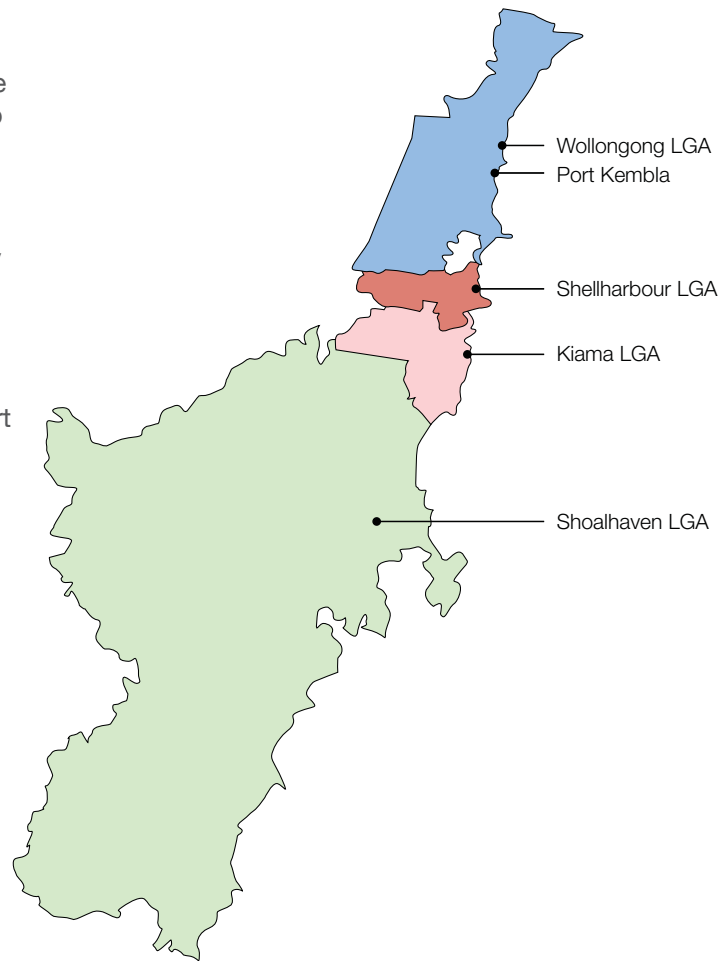
This region and its Port facilities represent a timely opportunity to meet RAN needs and contribute to State economic development and a visionary Federal Government infrastructure initiative.



2. Overview of the Illawarra

The Illawarra region encompasses the four Local Government Areas of Wollongong, Shellharbour, Kiama and Shoalhaven. It begins just south of Sydney stretching from Helensburgh in the north to Durras in the south. It has a population of 385,000 that is projected to grow substantially in future years.

Wollongong is located just an hour's drive south of Sydney, giving superb connectivity to the nation's largest and most dynamic economy as well as proximity to the major city and national capital of Canberra. Current and projected key economic and growth areas include the Wollongong Centre, the Northern corridor (North Wollongong – Thirroul), West Dapto, Tallawarra, Calderwood, Nowra Centre, the international Port of Port Kembla and Defence bases at Shoalhaven. (Draft NSW Regional Growth & Infrastructure Plan 2014)



3. The Case for Relocation to Port Kembla

Why Port Kembla?

As cited in the NSW Government's submission to the Commonwealth 2015 Defence White Paper:

"The desire for cruise ships to have greater access to the Royal Australian Navy's docks at Garden Island highlights the evolving nature of Australian cities and the tensions that can arise over how our scarce land resources are used, including for defense purposes. The NSW Government would welcome the opportunity to explore with the Commonwealth Government ways of meeting both expanding Navy capability requirements along the NSW seaboard and the State's growth and development". (NSW Government 2014)

Naval facilities should remain in NSW where \$5.8 billion (30%) Commonwealth Defence spending occurs and over 80 Defence facilities with 28% of the nation's civilian and military personnel are located. However, the lack of wharf space at Garden Island and capacity to accommodate LHDs, AWDs and new submarines, together with noise and environmental issues at the current site suggests relocation to a facility such as Port Kembla is imperative. Port Kembla is a key strategic location for RAN operations, with efficient operating times and proximity to other significant Navy facilities. It offers round the clock maintenance operations and flexibility, as well as separation from the surrounds, providing improved security and residential amenity. Moreover, relocation would free capacity to accommodate cruise ships to boost tourism income and enable development of the site.

Compatibility with Current Operators and Industries

The RAN relocation to the Port of Port Kembla is an excellent strategic fit with existing operators and industries. The coexistence is mutually beneficial. Major operations at the Port include the Port Kembla Coal Terminal (PKCT), grain terminals, vehicle imports, BlueScope, bulk liquids and general cargo.

Garden Island is located in close proximity to residents and the Sydney CBD which presents significant congestion, noise, air quality and logistical constraints. Garden Island is restricted to 'out of hours' 55db noise levels which will be exceeded by LHDs and AWDs, a catalyst to move from Garden Island sooner rather than later. Furthermore, community concern associated with bunker fuel emissions is only likely to increase with corresponding demands for tighter regulation. Unlike Garden Island, there is a great synergy between naval operations and existing operators and industries at the Port of Port Kembla including:

- Unrestricted maintenance activity 24/7;
- Lower impact of noise and air quality pollution due to industrial surroundings;
- Efficiency due to proximity of industrial supply-chain;
- Well established road and rail freight corridors provide for a streamlined naval freight movement, with the option to expand rail facilities with the completion of the Maldon to Dombarton Rail Link near Port Kembla;
- Clear separation from surrounds for improved security; and
- Strategic fit with the development plan for the Outer Harbour container facility.

A Synergistic Business Environment

The Illawarra region has a strong manufacturing and mining base with a diversifying economy growing strongly in a number of areas including ICT, high value professional service activities, education and training, health and aged care, transport and logistics and e-commerce. The RAN relocation would further promote the diversification of the Illawarra economy and reduce the economic and social impact of systemic adjustments in the local manufacturing and mining sectors.

Port Kembla naval operations could co-exist with existing operators, including BlueScope, and industries in the Illawarra region. There is strong support for both the RAN relocation and greater Defence operations from the local business sector as highlighted in a recent survey undertaken by the Illawarra Business Chamber (IBC 2015).

Locational Advantages

Port Kembla is close to the Beecroft range and a supportive community at Nowra. It is also close to Jervis Bay facilities of Darling Roadstead and Montague Roadstead and in closer proximity to Joint Armaments Logistic Organisation (JALO) facilities in Port Eden. Providing facilities are regionally available to Defence airfields at Nowra Air Station (NAS) and Jervis Bay Regional Facility (JBRF). Furthermore, airtime from Port Kembla to Headquarters – Joint Operational Centre at Bungendore (HQJOC) is 30 minutes and the Port is also close to HMAS Albatross and the Fleet Air Arm to prepare embarked aircraft for tours of duty. Page 9 provides a map of some of these strategic locations in a regional context.

Logistics:

The continuing upgrade of the NSW Ports' Port Kembla operation is creating opportunities for companies operating in the logistics field. Industries such as shipping, stevedoring, warehousing, distribution, support services and repair and maintenance are growing to cater for the Port's expanding trade in vehicles, containers and break-bulk cargoes, as well as its traditional strengths in steel and bulk cargoes such as coal and grain. Companies include WWL, Patrick, Autocare, Prixcar Services and AAT.

(Advantage Wollongong 2014)

A Safe and Secure Precinct for Naval Assets

Port Kembla Harbour has a water depth of 16m at the entrance and 15.2m in the Inner Harbour basin, thus meeting naval requirements for surface ships (including LHDs and AWDs) and future submarines. It is a well-protected Harbour with ease of access to the open sea and prevailing winds are mostly from the south east and north east. The Five Islands offshore afford natural protection against foul weather from the south east including heavy swells, and accordingly makes for safer entry and exit at Port Kembla Outer Harbour in all weather conditions. Access control to Outer Harbour would easily be managed and achieved.

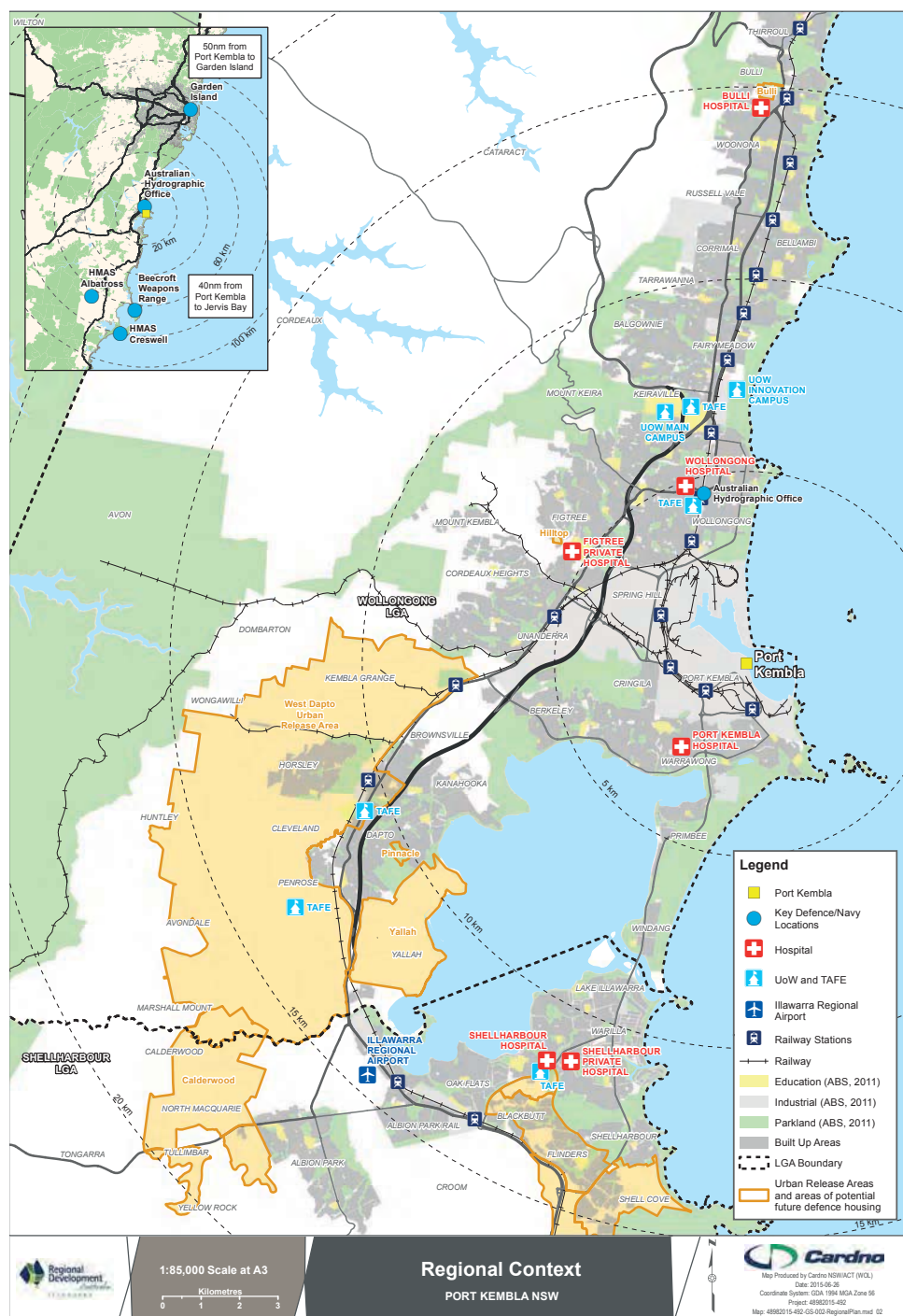
Port Kembla offers a clear delineation between the Port area and surrounding suburbs due to the surrounding road network. This provides a more tangible compound that can be secured by the RAN than currently exists at Garden Island, which is in close proximity and overlooked by the surrounding suburbs.

Fleet Repairs, Maintenance and Service

Naval facilities at Port Kembla would have ready access to a range of world class contractors. The Illawarra Region is recognised as a centre for manufacturing and technology excellence. Ship repair or refits could be conducted undercover to protect equipment and electronics undergoing servicing and repair.

Advanced manufacturing is a key source of innovation, technology and skills transfer for the Illawarra. Increasingly, the region's manufacturers utilise sophisticated and innovative technology to design and produce solutions for client's needs. This sector employs highly skilled and dedicated people in the area such as those engaged in design, engineering, research and development, fabrication, work, health and safety and quality assurance. All of this would be accessible to the RAN.

The Illawarra has an excellent track record and long history of carrying out major works safely, on time and within budget. An exemplary showcase of the capabilities of the region's industry was the massive upgrade at BlueScope's Port Kembla Steelworks in 2009 – it was a text book case of what happens when manufacturing and construction excellence come together. The upgrade comprised three major projects: No. 5 Blast Furnace Reline, Sinter Plant Upgrade and Slag Granulation Upgrade. These projects saw a combined investment of \$549 million and nearly three million man hours while maintaining an enviable safety record.



Illawarra Regional Airport

Located in Albion Park in the Shellharbour Local Government Area is the Illawarra Regional Airport (IRA). Shellharbour City Council is spending considerable time and resources positioning the airport to take advantage of future development opportunities. The airport has the potential for major upgrades, including land within the airport for future industrial and R&D expansion. The airport should not only be seen as an important gateway to the region (and Port Kembla) but also a place that can support some of the navy's activities and support services. A Navy installation at Port Kembla would enjoy short flight times between IRA and HMAS Albatross and Holsworthy Army base.

Port Kembla: The Optimal Alternative

In addition to savings derived from alternative uses for Garden Island land and facilities, costs incurred in developing infrastructure at Port Kembla would be offset by long term savings, including lower costs for DHA housing stock, with recurrent savings in housing and rental allowances. With an established naval base, second and third tier logistics and technical support could be drawn from Wollongong regional suppliers for Fleet provisioning and sustainment for ships, food supplies, medical and dental services.

It is noted that a naval base and support facility may require additional infrastructure and new development at Outer Harbour (see Attachments B and C). However these could be made readily available as an extension of current capacity or development of alternate facilities in the Outer Harbour on the basis of coexistence with the approved future Outer Harbour container facility.

Significant current work on enhancing the capability of Outer Harbour will contribute to meeting future requirements. This would include:

- upgrades to existing wharves and new wharves to accommodate the new ships and submarines earmarked for commissioning;
- the establishment of a dry dock for RAN ships and large commercial vessels so that Captain Cook Dock can be decommissioned;
- a syncrolift and covered area for all-weather secure environment ship repair operations similar to that of United Kingdom yards;
- workshops for fleet base maintenance;
- diesel and bunker fuel (already available in the Port) (NB. aviation fuel is provided to Garden Island by road tankers and the same operation is required in Port Kembla, however there is capacity for aviation fuel to be stored on site); and
- buildings to house headquarters for training staff, Command Control Communications capability within a secure environment, and technical and logistics support.

Other East Coast Options Considered in the Past Townsville

It was once mooted that the Navy's LHDs should be co-located with the Army in Townsville. Although Townsville is the base for Army's operational deployment forces, the Port is too far from naval depot level maintenance facilities in the Sydney region and vital training support organisations.

The number of berths available in the Port are limited, and Port access is via a very narrow and lengthy channel which can be weather limited particularly during strong SE winds and the Port is vulnerable during the cyclone season. High density traffic of recreational surface craft would make security access control difficult.

The Eastern Australian Exercise Area (EAXA) and Naval Air Station (NAS) Nowra remain the centre of gravity for all aspects of training, including aviation readiness, so that ships reach and maintain their minimum level of operational readiness. Ships and personnel are then safe to deploy for more advanced exercises and/or operations.

Gladstone

Gladstone has been considered an option in the past. However, the Port is too far from the EAXA.

Movements at the Port are very restricted during LNG tanker operations. Medium density traffic of recreational surface craft would make security access control difficult.

Brisbane

Brisbane was flagged in 2013 as a potential base for LHDs and future submarines. No facilities exist presently and substantial reclamation work would need to be undertaken to build an island base as was proposed for a site near the mouth of the Brisbane River. Additionally, Moreton Bay is serviced by long narrow channels for entry to Brisbane and these channels require regular dredging to maintain safe depths for deep draft navigation.

The EAXA and NAS Nowra remain too far removed for all aspects of training for ships to reach and maintain minimum levels of operational readiness. High density traffic of recreational surface craft would make security access control of the base difficult.

Newcastle

The Port is serviced by a narrow exposed entrance which is weather limited. It closes for periods of foul weather, particularly when large south easterly swells make it unsafe for Port entry.

Recent press reporting indicated a 25% reduction in commercial trade because of weather related Port restrictions (ABC Canberra 666, 4 June 2015). Medium density traffic of recreational surface craft would make security access control difficult.

Eden

The Port does have a naval support presence for ammunitioning Fleet units. However, the Port lacks industry and infrastructure, including appropriate road/rail access, for the support of ship refit and repair, as well as lacking community infrastructure for personnel. Medium density traffic of recreational surface craft would make security access control difficult.

Aerial image of the Inner and Outer Harbour



Illawarra / South Coast Competitive advantages: A State Government View

- Close proximity to Sydney, and its population of over four million people
- High quality technical and higher education facilities, including the University of Wollongong, with extensive research and development capabilities
- Connectivity to Australia's major cities and the rest of the world through Sydney's international airport and the Port of Port Kembla
- An excellent natural environment offering a high quality of life for residents
- Readily available supply of employment lands
- Wollongong's large economy (GRP >\$16 billion), with major national and international corporations already part of the city's business landscape
- A skilled workforce, including a skilled and committed community sector
- The Albatross Aviation Technology Park, a key location for Australia's defence activities into the future
- Significant urban land releases at West Dapto, Calderwood and Nowra/Bomaderry
- Considerable marine-based opportunities with a substantial range of coastal lakes, bays, rivers and estuaries

(NSW Government 2013)

4. Port of Port Kembla: Technical Capability, Benefits and Opportunities

Port Characteristics – Current Status

The Port of Port Kembla was first established in 1898 by an Act passed by the NSW Parliament on 23 December 1898. Work on the breakwaters commenced in 1900. The Port is a deep water Port with a channel water depth of 15.2m plus tide.

The Port of Port Kembla was leased by the NSW Government to NSW Ports on a 99 year lease which commenced on 1 June 2013. The lease includes the channel, breakwaters, navigation aids, wharves and land that was previously owned by the Port Kembla Port Corporation. NSW Ports also acquired the 99 year lease for Port Botany, the State's main container port.

Port Kembla is approximately 90 nautical miles from Sydney and 110 nautical miles from Jervis Bay.

The Port operates on a 24/7 basis and consists of the following wharf facilities:

Inner Harbour

Berths 101 and 102 leased to the Port Kembla Coal Terminal until 2030. Depth alongside is 11.6m and 16.25m respectively;

Berth 103 General purpose land backed berth with a water depth alongside of 14.5m;

Berth 104 mainly used for grain exports and combustible liquid imports with a water depth alongside of 15.9m;

Berth 105, 106, 107 land backed berths used for general cargo including motor vehicle imports. Depths alongside are 15.1m, 14.05m, 12.35m;

Berth 109 land backed berth leased to BlueScope until 2054. Depth alongside 11.5m;

Berth 110 RoRo berth leased to BlueScope until 2054. Depth alongside 10.55m; and

Berths 111, 112, 113 land backed berths leased to BlueScope until 2054. Depths alongside are 15.45m, 12.9m 11.45m.

Outer Harbour

Berth 201 used predominantly for fuel imports. Depth alongside 10.9m;

Berths 202 – 205 timber finger jetty leased to Gateway until 2022 and used predominately for dry bulk imports and exports. Depths alongside 10.6m, 10.05m, 3.95m, 5.7m; and

Berth 206 timber jetty used for acid imports. Depth alongside 11.25m.

Berths 101 and 109 have pipeline facilities to allow direct bunkering of vessels.

The Port is also serviced by a fleet of tugs, each having a bollard pull capacity of approximately 61 tonnes.

Further information on the characteristics and facilities of the Port can be found under the Port Kembla section of the website (www.nswports.com.au).

BlueScope – Major User of Port Facilities

BlueScope, as part of the Illawarra Consortia, supports this submission. BlueScope sees a potential relocation of the RAN base as making a major contribution to the local community in terms of employment, better utilisation of existing infrastructure and optimisation of the existing Port and related land facilities.

BlueScope has a number of offices and industrial warehousing facilities that are surplus to their current steelmaking requirements and could be made available for licence (lease) and in some cases, for purchase. Surplus facilities within their main manufacturing footprint would only be considered on a licence basis.

Some of the properties, including CRM and Steelhaven, are in close proximity to the Outer Harbour and have road and rail connectivity. These properties are currently being utilised by BlueScope for logistics and service activities, and by third parties under short to mid-term licence arrangements. If suitable to the RAN, areas of these sites could be made available for licence or purchase.

Further property opportunities include a significant industrial property, the Stainless site, near Unanderra. Whilst located further away from the Outer Harbour, it has good road and rail access. This property could also be available for either licence or purchase. BlueScope also has a vacant industrial site on Springhill Road (the 'horse paddock') that is available for immediate sale.

BlueScope would support further discussions with the RAN to ascertain how these assets could be utilised to provide land-based capability to a Marine set of requirements. BlueScope would also entertain site visits by RAN personnel to allow them to explore the suitability of its surplus property for RAN requirements.

There will no doubt be a range of stakeholders (e.g. NSW Ports; RMS, etc) that will need to be engaged on a number of capacity related issues, including marine berths and road and rail networks. BlueScope offers to work together with these bodies to support the resolution of any impediments.

Diagrams on pages 15 and 16 illustrate the Port precinct and key locations pertinent to this submission.

Port Management Structure & Responsibilities

An obligation under the lease is that NSW Ports is required every five years to prepare a Port Development Plan which must be agreed with the NSW Government. This plan sets out the development objectives and proposals that are forecast to occur within the planning period and beyond if the developments are known and have a high probability of proceeding. A copy of the current five year development Plan is available on the NSW Ports website (www.nswports.com.au) under 'Publications'.

The NSW Government retained responsibility for all regulatory functions including the Harbour Master functions and pilotage.

In addition, while Roads and Maritime Services have ownership of the seabed, NSW Ports has responsibility to ensure that the Port depths are maintained, navigation aids are maintained and, where berths are not leased to tenants, maintenance of those berths.

Where berths are leased it is the tenant's responsibility to ensure that the berth is maintained to a standard that is fit for purpose, safe and meets all operating obligations.

Trade Activity

For the year ending 30 June 2014 the Port of Port Kembla handled approximately 26.4m tonnes of commodities. For the year ending 30 June 2014 there were approximately 830 vessel visits.

At this stage, other than for new business that may be attracted to the Port, no significant growth in trade is expected. However the Port Kembla Coal Terminal (PKCT) is currently undertaking a restoration and compliance project. PKCT is more than 30 years old and some of the machinery is nearing the end of its effective life. PKCT plans to replace and restore existing machinery thereby ensuring future work health, safety and environmental performance is assured.

Projects that have been recently completed include the Graincorp bulk liquid (industrial oils) facility, berth 103 extension to 245m and the Quattro Grain project, both of which will be completed in November 2015. The National Bio-diesel project is currently scheduled to commence construction by May 2016.

Further Opportunities

Port Kembla is well situated to respond to increasing demand for Port services including provision of deep water of 15.2m, meeting naval requirements for surface ships including LHDs and AWDs and, of course, future submarines.

There are opportunities to provide additional berths and materials handling facilities by reclamation in the Outer Harbour while recognising that Port Kembla will be the second container Port for NSW and as such Navy and Port operations must coexist.

There is also undeveloped land in the vicinity with good road and rail linkages via Mount Ousley Road and the Illawarra and Moss Vale rail lines. The proposed future construction of the Maldon to Dombarton rail link will add to these transport linkages.

Environmental and Security

Environmental factors

Similarly to Garden Island, Port Kembla Harbour is subject to NSW Environmental Protection Authority (EPA) regulations and as such, the Port activities are required to comply with NSW EPA guidelines.

Security

Some opponents of the move to Port Kembla have suggested that measures to disrupt or prevent access to and from the Port could exist at the narrow entrance (approx. 200m wide) to Port Kembla Outer Harbour. Any such unlikely threat to Port Kembla Outer Harbour would also apply to other locations around Australia including naval bases where 'choke points' not only exist, but also in some cases, are worse than Port Kembla. For example, at HMAS Stirling (WA), Port of Townsville, Brisbane/Moreton Bay, Newcastle, Sydney Harbour eastern and western channels, Gladstone, and perhaps the main channel into Darwin Harbour; all have narrow channel access and could be vulnerable to the perceived threat.

A more credible threat scenario indicative of modern times, which Defence analysts would be more concerned about, would be one similar to that of the USS Cole incident (Port of Aden on 12 October 2000). That potential threat is evidenced by the level of self-protection displayed by US Naval warships visiting Garden Island to this very day. Noting the high density of watercraft traffic and ease of access to the Garden Island base, Port Kembla would be a much safer option, i.e. more easily protected in terms of access control to the proposed new major fleet base and ship repair facility.

5. Workforce Planning and Skilled Labour for the RAN Fleet

Relocation to Port Kembla would give the RAN an excellent opportunity to add value to workforce skills, engaging partners for training, professional development and research, including training and employment opportunities for partners of Navy personnel.

Access to and Cost of Skilled Labour

Wollongong has a large and experienced workforce, with skills ranging from traditional manufacturing to high technology and knowledge based industries. Wollongong is the second largest regional city in NSW with a population of 289,502 people (profile.id 2012). The Illawarra also includes the urban areas of Shellharbour, Kiama and Nowra. The talent pool available to Wollongong employers has several elements:

- Existing Wollongong employment pool: 223,266
- Commuter pool to Sydney: 31,280
- Student pool: 30,500
- Sydney southern suburbs population base within a one hour drive: 1 million +

Population Base

The Wollongong workforce mainly includes residents from the Wollongong, Kiama and Shellharbour Local Government Areas. Wollongong also attracts residents from Sydney's southern suburbs. Many have less than an hour drive to Wollongong. Including people within a one hour drive from Wollongong increases the population base available to Wollongong employers to over one million people.

Commuter Pool

Some 31,280 Wollongong residents currently commute to Sydney each day for work. This represents a significant labour pool that companies choosing to establish in Wollongong can tap into. This group represents a key opportunity to employ highly skilled persons from the competitive Sydney labour market at considerable savings. Around 70 percent of the commuter pool represents skilled professionals working in services.

In addition, over 4,400 people commute to Wollongong from outside the region for employment. This provides a ready-made workforce for any prospective business looking to expand or relocate its business to the region.

Student Pool

The University of Wollongong's (UOW) current student population of 32,914 offers employers another large potential talent pool from which to draw. Of the 33,000 students enrolled, around 2,500 are highly tech savvy IT students. The student pool is utilised extensively by businesses in ICT, especially in tech support roles.

About 600 IT students graduate annually from UOW, making it among the largest IT university faculties in Australia. Exact numbers are shown in the table below. The following table gives a snapshot of some of the key attributes of Wollongong's talent pool:

Workforce, aged 15+ (#)	223,266
Employed (#)	119,446
Unemployment Rate (%)	6.7
Participation Rate (%)	57.3
Employed in ICT sector (#)	1,449
UOW Students enrolled in ICT - 2014	2,507
UOW Graduates in ICT - 2014	624
UOW Students enrolled in Engineering & Related Technologies - 2014	3,041
UOW Graduates in Engineering & Related Technologies - 2014	547

Furthermore, TAFE Illawarra has enrolled 280 students in maritime and engineering awards over the past 18 months. The Certificate III in Surface Preparation and Coating Application, for example, is presently offered to contractors of the RAN working at Garden Island. Other qualifications relevant to naval construction include surface finishing, diesel mechanics and hydraulics.

There is opportunity for RAN to partner with TAFE Illawarra for custom-designed courses to meet its specific requirements as it does with a Defence Force contractor for specialised materials for RAN's building of frigates in South Australia.

Retention and Diversity

Wollongong businesses enjoy relatively high staff retention rates. This translates into reduced costs associated with the selection and training of new staff. Wollongong's multicultural population ensures a broad mix of foreign language skills, making the city an ideal location for companies with international connections. This group represents a key opportunity to employ highly skilled persons from the competitive Sydney labour market at considerable savings.

Commuters

The time spent travelling to and from work impacts not only travel costs but on people's ability to maintain desirable work life balance for those working in Wollongong as opposed to those commuting. Wollongong residents generally experience short journey to work time and costs. Wollongong's road network does not suffer from the same traffic congestion issues as Sydney.

The City has an integrated suburban bus and train network that includes a free shuttle bus linking key areas of the City Centre, the University and TAFE Illawarra. This is complemented by regular train services to Sydney as part of the Sydney Trains network.

Employment Opportunities

As the regional capital, Wollongong has a number of key employment land precincts, including Wollongong City Centre, West Dapto, Innovation Campus, Kembla Grange, Tallawarra Business Park and NSW Port's Port Kembla Operation.

The Wollongong CBD has a vital role as the commercial and administrative centre for the region. There is a significant existing industry base across knowledge services in ICT, business and financial services with 72 locations across Wollongong employing some 4,900 people.

The size and diversity of the Wollongong economy ensures the business community is well serviced by a broad array of support industries including leading accounting, legal, planning and IT companies.

The revitalisation of the City Centre is underway. Over \$700 million of development is currently underway or has been completed in the last 12 months, including the completion of a \$200 million new shopping complex by the GPT Group. The City Centre is also an important precinct for tourism related businesses, with the majority of accommodation, restaurants/cafes and retail operators located here or in the CBD fringe along the foreshore. Over the past 24 months, 35 new cafes/small bars have opened. The density of these businesses in the CBD is what draws the visitors and residents to the area daily, making it the City's focal destination.

The Innovation Campus is a \$500 million master planned Technology precinct. It provides a collaborative environment for businesses to work with world class research teams from the University of Wollongong. Located within the Innovation Campus precinct is the iAccelerate business incubator that assists technology startups and early stage companies with a structured pathway to accelerate their growth potential. It offers a potential for defence related businesses to relocate.

By way of international example, the University of California, San Diego, established in 1960 with a current student population of around 30,000 is now recognised as one of the top 15 research universities worldwide. San Diego is currently listed as the United States' 8th largest city. Over that time, the University of California, San Diego has developed major partnerships with the US Navy (the Port of San Diego hosts the largest naval fleet in the world). Such a presence has led to several major defence related businesses establishing in the area. According to the City's 2014 Comprehensive Annual Financial Report, the top two employers in the City are now the United States Navy and the University of California, San Diego.

Kembla Grange to the south west of Wollongong has been earmarked as a key employment precinct. Existing facilities are to be expanded to include additional manufacturing, a business park and service industries. These employment lands will also support the expansion of the NSW Ports' Port Kembla operation.

The Tallawarra Business Park precinct, on the western shores of Lake Illawarra, sits adjacent to the gas fired Tallawarra Power station developed by Energy Australia. Planning controls for the site propose a range of employment and tourism land use. It sits in an area that also includes proposed residential land, open space and environmental conservation land.

Illawarra Regional Airport is situated adjacent to Port Kembla at Albion Park. The airport precinct already has experienced personnel, with the opportunity to grow the aeronautical skills base and develop further facilities with the support of Shellharbour City Council.

Anticipated Employment Benefits for Defence Personnel and Their Families

Spouses of RAN personnel will find many opportunities for employment in the region or may choose to commute to Sydney. Large employers in the region include the University of Wollongong, BlueScope, IRT Group, Pillar, health insurers like Peoplecare and AHM, Local, State and Federal Government agencies. TAFE Illawarra also offers specialised qualifications in naval construction and maritime studies (see chapter 6).

6. Educational Facilities

University of Wollongong

The University of Wollongong (UOW) is a major entity in NSW based in the Illawarra with satellite operations in Nowra, Bega, Batemans Bay, Moss Vale, Loftus and Sydney CBD. The main campus at Wollongong occupies an 82 hectare site, 3km north-west of the Wollongong City Centre. The University's Innovation Campus (32 Ha) is located near the foreshore in North Wollongong, 3km north of the City Centre.

Major expansion over recent years has seen growth from 13,000 student enrolments in 1998 to almost 33,000 in 2015. UOW employs about 2,500 full time equivalent staff and a consolidated entity budget of \$550m. In 2014 it ranked 26th in the world in the QS ranking for the top 50 global universities less than 50 years old. In 2011 UOW generated gross output over \$2.06b, value-added of \$1.1b and nearly 8,000 full time equivalent jobs in the economy.

From a regional perspective, UOW is the second largest exporter in the region after coal mining. It injects nearly \$700m into the regional economy each year and has the highest graduate employment rates for both domestic and international students among Australian universities.

UOW has a strong presence in Defence-related research and training and maritime security. For expanded capability statements please refer to Attachments D and E.

TAFE Illawarra

TAFE Illawarra is a respected leader in the delivery of specialised qualifications relevant to naval construction and maritime studies. In the past 18 months, 280 students enrolled in TAFE Illawarra maritime and engineering qualifications delivered by teaching staff with over 20 years maritime experience and more than 40 years of industry association. For example the Certificate III in Surface Preparation and Coating Application is presently offered to contractors of the RAN working at

Garden Island. Other qualifications relevant to naval construction are the Certificate III in Surface Finishing and qualifications in diesel mechanics and hydraulics.

TAFE Illawarra students enjoy a contemporary learning experience in world class facilities. A \$17 million investment by the NSW Government will ensure TAFE Illawarra continues to offer this experience in the future as will the Mechanical Engineering Centre of Excellence at TAFE Illawarra. This Centre of Excellence was developed in consultation with the Illawarra and South East Region Mechanical Engineering, Manufacturing and Environmental Technology Consortia including HATCH, BlueScope and Illawarra Coal. The Centre features advanced mechanical engineering, manufacturing and environmental technology facilities and is the first in Australia to utilise the Sage Didactic system.

TAFE Illawarra enjoys significant relationships with maritime industry experts to ensure training meets current industry practices. One example includes a partnership with a company contracted to the Australian Defence Force for the provision of specialised materials to the RAN for building frigates in South Australia.

A major focus for TAFE Illawarra in the future is the ongoing development of customised flexible training, accredited qualifications and industrial training opportunities required by organisations like the Australian Defence Force. TAFE Illawarra's integrated approach to ongoing quality improvement links all business processes to customer feedback.

Primary, Secondary and School-Based Vocational Education

There are many Government, Private, Catholic and Denominational schools in the district that provide for general education, vocational training and special needs education. Secondary schools include those with special programs of excellence in areas such as academic, sport, performing arts, technology, language and permaculture.



7. Infrastructure

A concerted effort by key stakeholders to improve infrastructure standards in the region has been underway for some time. These efforts have contributed to some of the major works that are now happening in the region. These works would significantly support a naval relocation in all facets.

Recent and Planned Infrastructure Development in the Illawarra Region

- In June 2015, the NSW Government passed legislation to privatise 49% of electricity poles and wires in order to invest \$20 billion across the State. Responding to the Government's Rebuilding NSW Discussion Paper in late 2014 on infrastructure requirements, a Consortia of peak business, local government and community stakeholders in the region provided a joint response (RDA Illawarra 2014). The submission agreed on the top three infrastructure needs of faster road and rail connectivity with Sydney and construction of the Maldon to Dombarton dedicated freight rail link, with the latter being synergistic with the relocation of naval operations.
- Following the NSW Government's decision to privatise the Port of Port Kembla, \$100 million was set aside for capital infrastructure projects in the Illawarra. The resulting Restart NSW Illawarra Infrastructure Fund has been directed toward construction of roads, hospitals, aged care, disability, tourism facilities and the UOW iAccelerate facility (NSW Government 2013).
- The region also has its own Illawarra Regional Transport Plan (NSW Government 2014).
- Already the Port of Port Kembla is handling NSW's motor vehicle imports, and construction is progressing on the new \$700 million Outer Harbour to support growing trade opportunities, including a broadening range of bulk products including cement, soy bean, bauxite and iron ore, as well as containers – which are expected to increase once capacity is reached at Port Botany.
- The West Dapto Urban Release Area is on track to provide residential land for 18,000 new homes to cater for an extra 47,600 people living in the region by 2031. To support this and other nearby urban land release projects at Tallawarra and Calderwood, water infrastructure to the value of \$70m will be installed by 2019 and \$84m worth of waste water infrastructure will be installed by 2015.
- Over \$700 million of construction is underway or has been completed in the last two years within the Wollongong City Centre. These include construction of a new GPT shopping complex (resulting in 800 full time equivalent jobs), the Crown St Mall Refurbishment, several mixed use developments, and commitment of new SES headquarters. Based on current construction, the Wollongong CBD population is projected to double in the next three years.
- The State Government is spending \$134 million to upgrade regional hospital facilities to support our growing population.
- Construction is in progress on the second of three stages of the Shell Cove Boat Harbour development, which will accommodate a 300-berth marina with the development on adjoining land of 'The Waterfront' – which includes public facilities, a retail and commercial centre, residential development, a technology park and boat servicing facilities. The boat harbour development will provide more than 150 full time positions during construction and more than 2,000 long term employment positions in the region.
- Roads and Maritime Services are progressing plans to complete three separate upgrades of the Princes Highway between Gerringong and Bomaderry just north of Nowra to support growing traffic volumes, improve road safety and efficiency, and social amenity for local communities. A \$329 million Gerringong upgrade is due to open to traffic by mid-2015, the detailed design and build contract for the Foxground and Berry bypass has been awarded, and approval for preparatory work on stage three of the Princes Highway upgrade between Berry and Bomaderry has been granted.
- Roads and Maritime Services is planning a future extension of the M1 Princes Motorway between Yallah and Oak Flats to bypass Albion Park Rail. The NSW Government has committed funding to allow construction to start by early 2019. Planning is also underway for a new bridge that will improve conditions on the Princes Highway over the Shoalhaven River at Nowra. \$1.6 million has already been invested by the NSW State Government with the Federal Government committing \$10 million to complete planning. The bridge and bypass will complete the 'missing links' for a high standard road between Sydney and the Jervis Bay turn-off (Shoalhaven).

The West Dapto Land Release Area is located 12km south of Wollongong and covers an area of approximately 4,700 hectares. The release area will provide an additional 17,000 dwellings for 50,000 people and 184 hectares of employment land creating 8,500 jobs over the coming decades. This is an important key site for the region as it is the largest single release area outside the Sydney metropolitan area. [Wollongong City Council (2014, p19)]

8. Affordable Housing In the Illawarra

Competition to attract and retain highly skilled personnel has become increasingly intense. A key factor in the Illawarra's superiority as a RAN base location for Defence employees is that it offers superb liveability for people of all ages, great locations for people to live, work and play and, importantly, affordable housing options to suit a diverse range of needs. The Illawarra offers a variety of residential choices, ranging from quaint coastal villages in the north, beachfront apartments near Wollongong City Centre, to executive residences and family homes in leafy suburbs, as well as rural acreages.

One of the key drivers of population growth over the past two decades in the Region has been the relative cost and affordability of housing compared with Greater Sydney. In fact, median rental and purchase property prices in the Illawarra are up to 40% less than Greater Sydney. While property prices, both rental and purchase, are on average significantly less than Sydney, at a small scale, the regional property market is highly differentiated. This differentiation allows for a range of housing needs to be satisfied from very low cost to premium beachside residences. In general, the areas closest to Sydney and in high amenity locations attract premium prices, while suburbs around the Port Kembla industrial area, Dapto, Unanderra, Albion Park, Warilla and Nowra are relatively low cost options.

In the March Quarter 2014 Rent and Sales Report by Housing NSW, a median dwelling in Wollongong LGA sold for 29% less than in Greater Sydney, while in Shellharbour the median sale price was 31% lower. The Shoalhaven had the lowest median sale price, 40% lower than Greater Sydney, while Kiama was priced around the same as the greater metropolitan area.

There is diversity in the market within a reasonable commuting distance of Port Kembla to provide families with a choice of dwelling locations dependent on budget and lifestyle needs. The ageing population is likely to result in a high turnover of property in suburbs in close proximity to the Port of Port Kembla, providing the opportunity for Defence personnel to access established housing in close proximity to their work at reasonable cost.

The Port of Port Kembla is in close proximity to a range of housing options. Lower cost areas such as Port Kembla, Warrawong and Cringila are a five minute commute from the Port, with premium locations in the northern suburbs only a 20-30 minute commute, providing ease of access and further lifestyle benefit. Property Council of Australia (Illawarra Chapter, 2015)

NSW strategic plans propose 45,000 new dwellings across the Illawarra by 2031, with 70% of these dwellings in new release areas. These areas comprise West Dapto and Calderwood, which are within a 15 to 20 minute journey of Port Kembla, along with smaller areas dispersed around Lake Illawarra and further south around Nowra. There is the opportunity for Defence to work with developers to obtain areas of housing and tailor these areas to specifically address Defence personnel's identified needs. These areas would provide a ready source of housing for a future RAN base at Port Kembla.

For an extended summary and pertinent Housing statistics refer to Attachment F.

Housing and Residential Land Supply in the Shellharbour City Council LGA:

Shellharbour provides for a diversity in housing choice and housing prices. It has major urban release areas in the west of the city such as Calderwood and Tullimbar sufficient for the next twenty years. In the east is Shell Cove and other smaller estates coming on line. Revitalising of existing urban areas is also continuing. Shellharbour exceeds all supply benchmarks set by State Government in relation to residential land supply. (Shellharbour City Council 2015)



9. Services in Greater Wollongong and the Illawarra

Wollongong

Wollongong is NSW's third largest city, but has the advantages of a capital city without the big city costs. This City of Innovation is reinventing itself as an important knowledge services centre, international trade hub and leading university city.

Wollongong offers quality, modern and reliable digital technology, education, health, transport and community infrastructure. Located south of Sydney, Wollongong is the most connected regional city in Australia.

Sydney International Airport, Australia's gateway for international visitors, is a one hour drive away. Sydney International Airport is globally connected with 37 international airlines flying to 48 destinations around the world. About half of these services are bound for Asia, either as the final destination or en-route to European destinations. More than half the international visitors arriving in Australia arrive through Sydney.

Wollongong is well serviced by major road and rail links. The Sydney – Wollongong passenger corridor is one of the busiest in Australia and Wollongong residents enjoy relatively fast travel times to Sydney by road along the M1 Pacific Motorway or by rail. Wollongong is connected to Sydney's City Trains network, which services both Wollongong suburban commuters and those travelling to and from Sydney. The City also has extensive rail freight infrastructure. The Hume Highway is a 20 minute drive from Wollongong. This major freight and passenger corridor provides road access to the important centres of Canberra and Melbourne.

Wollongong's quality health infrastructure includes nine public hospitals, four private hospitals as well as 24 private nursing homes. The \$134 million expansion of the Wollongong Hospital includes a new elective surgical services centre, enhanced emergency department, ambulatory care centre and multi storey car park. Wollongong's health infrastructure is being boosted through the construction of a brand new \$120 million private hospital. The City also has an extensive network of health specialists, many of whom are associated with the University of Wollongong's Graduate School of Medicine.

Today, Wollongong is also a university city that prides itself on academic excellence. As well as the world-class university and TAFE Illawarra, Wollongong has a wide range of quality State and private schools (see Chapter 6).

Wollongong's high speed digital infrastructure allows many of the region's large and small businesses to access worldwide markets. The National Broadband Network (NBN) is being rolled out in Wollongong, complementing the City's existing high quality fibre optic and broadband technology. In 2013, Council launched free Wi-Fi in outdoor areas in the City Centre.

Wollongong is ideally located on the main Sydney – Melbourne fibre optic trunk line with most commercial

locations offering double or triple fibre redundancy options. The extensive digital infrastructure includes a newly constructed Tier 3 Data Centre, a key piece of strategic digital infrastructure for data intensive businesses. Wollongong is digitally just two milliseconds from Sydney and its modern digital infrastructure provides the city with fast and reliable connectivity to the world.

Shellharbour

Shellharbour City is the LGA contiguous with Wollongong (North) and Kiama (South), which in turn is connected to the Shoalhaven. Shellharbour City offers housing diversity, land supply, and the Illawarra Regional Airport. In addition, a range of affordable housing is available at Albion Park and Calderwood.

The Shell Cove project currently underway includes residential (4,000 dwellings), commercial and recreational facilities. It also includes a State-significant boat Harbour (larger than Darling Harbour in Sydney), marina and waterfront town centre that are currently under construction. A high technology business park is also planned to be delivered as part of the Shell Cove project.

Shellharbour City Council operates the Illawarra Regional Airport at Albion Park and is positioning it to take advantage of future development opportunities. The airport provides an alternative to the Sydney basin airports and is not encumbered by restricted air space or air traffic controls, which cause costly delays for aircraft movements. The airport precinct includes a Light Aeronautics Industry Cluster and the airport's Master Plan includes major upgrades to aviation facilities and utilisation of land within the precinct for further industrial use and R&D expansion. The airport has easy access to HMAS Albatross and Holsworthy Army Base.

Shellharbour City also has a vibrant business community and an active formal local business network that is supportive of Navy relocation plans to Port Kembla.

Kiama

Kiama is a great place to live, grow a business and spend quality time with family and is known for its natural beauty and clean safe surfing beaches. The Kiama LGA is located in the southern section of the Illawarra region with Shellharbour and Wollongong to the North and the Shoalhaven region to the south.

Kiama is well located and connected and sits on the national transport corridor which links Sydney (90 minutes) and Canberra (2.5 hours) and is close enough to commute to employment centers of Wollongong, Shellharbour and the Shoalhaven. Its strong work-ready economy has a high proportion of prosperous and highly skilled professional residents (compared to non-metropolitan NSW) with low unemployment rates. Whilst traditionally known for its agribusiness base, Kiama has expanded its economy to encompass internationally-focused industries and first class tourism facilities.

Its employment base is retail and tourism dependant, but is experiencing strong demand for business and professional services. The region has many established facilities and sites, and quite a few more in the pipeline.

Kiama can also provide state of the art connectivity to the world with the majority of the area being connected to the NBN as Kiama was one of the first NBN release sites in Australia. Kiama is fast becoming a hub for home based businesses due to the work/life balance that Kiama offers. Kiama is attracting new businesses that are taking advantage of the NBN network coupled with a committed highly skilled workforce and lower business costs.

Shoalhaven

Sitting furthest to the south is the Shoalhaven. The Shoalhaven contains the regional centres of Nowra and Ulladulla. Over the next few years, the Shoalhaven will offer incredible business opportunities. The area has a population over 100,000 and it remains one of the fastest growing in Australia. It has a dynamic manufacturing industry; high quality serviced industrial land availability; the thriving defence force industry which attracts internationally recognised defence contractors such as British Aerospace, Raytheon, Air Target Services and Air Affairs; and a fast growing education precinct centred on the University of Wollongong's southern campus.

It is blessed with beautiful landscapes ranging from the lush rainforests of the Kangaroo Valley, to the many miles of exquisite beaches along its eastern boundary. Stretching from Berry in the north to North Durras in the south, the temperate climate is comfortable all year round, with balmy sea breezes to cool in summer and clean crisp air for long country walks in winter.

Rich in local culture, it has many annual festivals that have become landmarks on the residents' and tourists' calendars. For example, the Shoalhaven Wine Festival and several Arts Festivals have gained a solid reputation for their high caliber along with the colourful weekend markets. Fresh produce is bountiful and locally farmed and harvested, including delectable seafood, market gardens producing top quality produce, wine, dairy produce, coffee and olive oil.

The Region

The region's four Local Government Areas have been identified, under a recent independent NSW review, as having strong well-resourced Councils who work closely together and with NSW State Government agencies to retain and enhance the amenity and capacity of the region with timely delivery of services and infrastructure.



10. Lifestyle Advantages for Staff & Families

The Illawarra has superb liveability, with a mild coastal climate and relaxed lifestyle amid a spectacular natural environment.

Wollongong has 17 patrolled beaches and a beautiful bushland backdrop of the Illawarra escarpment. It also offers a great range of recreation, retail facilities and restaurants. Since 2013, the City Centre has seen the establishment of 35 new cafés/small bars. The City boasts one of the best regional art galleries in Australia and a major entertainment centre (WIN) that regularly features performances by national and international touring acts. The City's performing arts centre has a subscription season featuring Australia's leading theatre companies.

The City is home to the St George Illawarra Dragons and the Illawarra Hawks, where both rugby league and basketball are prominent sports in the region. The region has excellent sporting and fitness facilities including the WIN Entertainment Centre, facilities at the University of Wollongong and at various commercial sites across our local government areas and is home to many local club structures that support numerous sports including netball, football, surf lifesaving, cricket and swimming to name a few.

Amenities for family living are well established in the multicultural communities surrounding the Port precinct. There is affordable housing for purchase or lease, new estates are coming on stream a short distance away in West Dapto and Calderwood, there is ample access to health services, schools, TAFE Illawarra, the University of Wollongong and major retail centres in Wollongong, Warrawong and Shellharbour. Port Kembla is connected by rail to the South Coast line. Council managed community centres and libraries also add to the livability of the district and the coastal lifestyle ensures one is never far from one of the Illawarra's pristine beaches.

The Port Kembla township itself is undergoing a transformation in its village streetscape and has become a focal point for artists, creative industries, community events and social enterprises. It is the proud home of the Port Kembla Community Project Inc, an umbrella organisation for community development in the area. It is a crucible of innovation for social outcomes through community and business partnerships.

Just south of the Wollongong LGA lies Shellharbour. Shellharbour is the home to sports and entertainment, a range of museums and boasts award winning cafes, restaurants and high tea, including Shellharbour Village's well known 'Eat Street'. It is also a major retail hub featuring major department stores alongside some

200 speciality stores with free parking. On weekends residents and visitors can enjoy the markets along the harbourside or venture south to Kiama for even more options.

Shellharbour is also the home to world renowned surfing and includes the 'The Farm', now a National Surfing Reserve located within Killalea State Park. There are also excellent fishing and prawning activities available and the ever expanding public, commercial and maritime facilities at The Waterfront and boat harbour site that is currently under construction. Housing options in Shellharbour are many with a diversity in housing choice and housing prices. It has major urban release areas in the west of the city such as Calderwood and Tullimbar sufficient for the next twenty years. Shell Cove is to the east with other smaller estates coming on line.

Kiama's coastal village is situated south of Shellharbour and 20 minutes from Port Kembla and it too boasts an array of activities and lifestyle choices for all ages. Between its nine beaches and the rolling green valleys of Jamberoo you will find the stunning Seven Mile Beach, ocean baths, rainforests and award winning wineries. It is the home to National Parks, Jamberoo Action Park, the Kiama Blowhole and the Illawarra Fly Treetop Walk. Similarly, housing options are many and range from your traditional cottages to terrace housing to rural acreages.

The Shoalhaven is the southern part of the Illawarra and is a very popular holiday destination. Whilst it too boasts a range of liveability attractions, has good housing options and affordability, a large city centre, the Shoalhaven river running some 300kms long and arguably some of the best beaches in the country, it also has HMAS Albatross – the home of the RAN's Fleet Air Arm. The strategic position of HMAS Albatross clearly has synergies with any relocation of the RAN from Garden Island to Port Kembla. Shoalhaven City Council supports the continued operation and growth capability of Port Kembla operations.

The Illawarra region is home to many residents and businesses taking advantage of the superior lifestyle it has to offer. These liveability aspects, in conjunction with good access to services (medical, dental etc), reduced travel times and housing affordability compared to capital cities, excellent educational facilities at all levels, connectivity to high speed broadband and commutability to Sydney, all contribute to the ease of living in the region.

11. Conclusion & Recommendations

Home to about 384,100, and an expected population of about 459,100 people by 2034, the Illawarra is the State's third largest economy, contributing \$16.5 billion to the State's economy in 2012-13.

The region is undergoing significant, exciting change. Our economy is diversifying with a broad range of service sectors, including high value professional service activities, education and training, transport and logistics, and information technology and e-commerce gathering pace to complement our traditional reliance on manufacturing and mining.

The region's unique natural and built environments are powerful sources of attraction for businesses wanting to make long term investments in sustainable enterprises, and for an increasing number of visitors who want to enjoy the pleasures afforded by our beautiful beaches, rainforests and modern urban settings, and the rich cultural calendar.

Relocation of RAN facilities to Port Kembla is compatible with the Illawarra's diversifying economy and could represent a game changer for regional renewal. There is capacity and willingness to further develop Port facilities to accommodate the needs of Fleet Base East and be welcomed by a skilled multicultural workforce and community. The Illawarra Consortia believes it has demonstrated that Port Kembla is the optimal solution for the Department of Defence to address Fleet Base East's growing challenges through the relocation of all or part of existing Garden Island operations.

Port Kembla Harbour can provide a safe, secure and accessible environment for a permanent base and support facility at less recurrent cost than at Garden Island. Here is an opportunity for State and Commonwealth Governments to cooperate to negotiate outcomes in regard to land acquisition and lease options and capitalise on economic opportunities, including cruise ship visitations, at Garden Island. Changes to BlueScope Steel operations may provide further potential utilisation of land and buildings and sustainable jobs in Defence occupations. Our region is an ideal location to support RAN requirements for logistics, engineering and operational needs. It is strategically placed close to Sydney, Canberra and RAN's Jervis Bay operation.

Our Consortia would welcome the opportunity to arrange a site visit to more fully consider the prospect of relocation to the Port of Port Kembla and looks forward to your response. Proposed next steps are represented by the following recommendations:

1. The Port Kembla relocation proposal be given a fair hearing as a White Paper option, and is deemed a RAN relocation option in the Defence White Paper and other strategic Defence documents such as the 20-year plan;
2. The Commonwealth Government evaluates the case for relocating all or part of current RAN operations at Garden Island to the Port of Port Kembla and undertakes a feasibility and scoping study in consultation with Commonwealth and NSW State departments; and
3. That relevant officials, including the Defence White Paper team, tour facilities at Port Kembla and be briefed on the site's capabilities.



12. References

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- D. Fitzgerald, Peta (2015). Property Oz. Property Council of Australia. 29 April 2015
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- G. Humphries, Glen (2014a). Illawarra Mercury. “Pros & cons of a Port Kembla naval base”. 12 December 2014
- H. Humphries, Glen (2014b). Illawarra Mercury. “Port Kembla uphill battle for navy ships”. 12 December 2014
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- K. NSW Government (2013). Illawarra / South Coast Regional Action Plan
- L. NSW Government (2014). Illawarra Regional Transport Plan
- M. NSW Ports Corporation website www.nswports.com.au
- N. Profile.id (2012). Estimated Residential Population
- O. Property Council of Australia (2015). Greater Illawarra: The Smart Growth Agenda. Strategic Summary Report
- P. RDA Illawarra (2014). Advancing Infrastructure in the Illawarra. A Regional Response to the NSW Government’s Rebuilding NSW Discussion Paper. 19 September 2014
- Q. Shellharbour City Council (2015). Personal correspondence from Geoff Haynes to RDAI 19 May 2015
- R. Wollongong City Council (2014). Economic Development Strategy 2013-23

13. Attachments

- A. Submission by Senator Concetta Fierravanti-Wells enclosing paper by John W Wells, Relocation of Royal Australian Navy from Fleet Base East Garden Island (GI) Sydney to Port Kembla, 29 October 2014.
- B. Port Services – Sydney, Brief to Dr Hawke, 12 September 2011
- C. Garden Island Brief (Technicals and some Issues)
- D. University of Wollongong. Defence Research and Training Capability Statement
- E. University of Wollongong. Maritime Security Capability Statement
- F. Property Council Illawarra (2015). Housing Affordability in the Illawarra

Attachment A

Senator Concetta Fierravanti-Wells

Liberal Senator for New South Wales



29 October 2014

Defence White Paper 2015
R1-3-A135
Russell Offices
Department of Defence
PO Box 7901
Canberra BC ACT 2610

I make this submission in my capacity as an Illawarra based Senator. Following my election to the Senate, I located my electorate office in Wollongong in 2005. I was born and raised in Wollongong and my family still live there.

I believe the time is now right to give serious consideration to relocate the Royal Australian Navy (RAN) Fleet Base East from Garden Island (GI) Sydney to Port Kembla. As a naval base and support facility, GI is under continued and growing pressure to move from the Sydney area.

Port Kembla offers an excellent opportunity for the RAN to establish a permanent base and support facility for its eastern fleet at significantly less recurrent cost to the Commonwealth over the long term. Whilst there are infrastructure and other relocation costs, these would be offset by the longer term savings including housing and personnel costs.

Upgrade of the facilities at Port Kembla Outer Harbour would require infrastructure expenditure which would dovetail nicely with strategic infrastructure initiatives intended throughout Australia by the current Government.

The Illawarra is under economic stress, compounded by the downsizing of Bluescope Steel. Nevertheless, it is an area with great potential.

Please find attached a submission prepared by my husband, John W. Wells. John spent 35 years in the RAN and has extensive experience, including ship command. A copy of his biographical details is attached to the submission.

Yours sincerely,

Senator Concetta Fierravanti-Wells

Encl.

Relocation of Royal Australian Navy from Fleet Base East (FBE) Garden Island (GI) Sydney to Port Kembla

EXECUTIVE SUMMARY

Recommendation: It is recommended that the RAN's primary support base FBE be relocated from GI Sydney to Port Kembla Harbour.

Port Kembla would offer an excellent opportunity for the Royal Australian Navy (RAN) to establish a permanent base and support facility for its eastern fleet at significantly less recurrent cost to the Commonwealth.

Port Kembla Harbour can provide a safe and secure environment—the harbour is deep and very accessible from seaward and would meet naval requirements, including that required for the two new Canberra Class ships—Landing Helicopter Dock (LHD) which are being delivered by BAE Systems and Navantia, during the period 2014-2016.

Upgrade to the wharves, surrounding facilities at Outer Harbour and perhaps the eastern breakwater would be required. However, such infrastructure expenditure would dovetail nicely with strategic infrastructure initiatives intended throughout Australia by the Abbott Government. Coalition Governments presently in power at both State and Federal levels provide a small window of opportunity for a cooperative environment to negotiate outcomes with respect to land acquisition and lease arrangement options etc.

The NSW Government could derive some benefits from Commonwealth assets shed at Woolloomooloo, GI and Potts Point. Of note, NSW Ports have future development plans for Outer Harbour. Even after relocation to Port Kembla, RAN ships and foreign warship visits could still utilise facilities at Woolloomooloo as required and for ceremonial occasions.

The proposed move to Port Kembla would to an extent, provide a much needed option and solution to create jobs in the region, particularly in light of the downsizing of BlueScope Steel. These newly created jobs to drive the relocation project would translate to sustainable jobs over the longer term given the ongoing increased Defence presence and its raft of ongoing requirements. Put simply, the relocation would address many of the problems concerning high unemployment in the region—Labor heartland which has been largely neglected by both Federal and State Labor over many decades.

The Wollongong region is an ideal location to support RAN requirements in terms of logistics, engineering and operational needs. The successful relocation of the Australian Hydrographic Service (formerly RAN Hydrographic Office) from North Sydney to Wollongong (1994) could provide a blueprint for any cost benefit analysis to confirm recurrent cost savings to the Commonwealth.

The Naval Air Station (NAS) at Nowra and the training establishment HMAS Creswell at Jervis Bay both continue to provide excellent opportunities for local industries and small business, including employment opportunities vital to the sustainment of the Defence support capabilities in the Illawarra and South Coast.

Of note, the NSW State Emergency Service (SES) has its Headquarters located in Wollongong.

Further, as part of expected cost savings to the Commonwealth in terms of housing and rental costs etc., RAN Members and their families would enjoy a much more affordable and enviable coastal lifestyle should the move be affected.

Wollongong has a world-class university, skilled multilingual workforce, competitive business costs, modern business infrastructure, supportive business networks, a modern teaching hospital and, quality public infrastructure.

John W. Wells

April 2014

GARDEN ISLAND and HMAS KUTTABUL

1. Garden Island is the principal east coast naval base of the RAN, and home port to many of the RAN's major ships. HMAS Kuttabul is the RAN's administrative, training and logistics support establishment for the Sydney area.
2. It has been observed in the past that the indirect costs of maintaining the Navy at GI include: congestion costs associated with the movement of naval personnel and stores through city traffic into an inner city location; the environmentally unsound and potentially hazardous disposition of having large warships berthed so near to the densely populated areas of Kings Cross, Potts Point and Woolloomooloo.

NAVAL BASE ISSUES

Naval Base Requirements

3. There are two separate facilities at GI, the FBE and GI Dockyard. FBE (HMAS Kuttabul) comprises Maritime Headquarters, the Navy's administrative and logistics centre at Potts Point and the adjacent wharf facilities at Woolloomooloo. Many have noted that the sight is highly congested with no room for expansion and any attempt to do so would be strongly resisted by residence.
4. GI Dockyard is managed and operated as an independent commercial entity by Thales Australia. It comprises Captain Cook Graving Dock, a floating dock and a range of engineering and maintenance facilities.

Security

5. Port Kembla Harbour would provide a safe and secure environment for naval assets—the harbour is deep and very accessible in navigation terms and would meet naval requirements, including that which are required for the two new Canberra Class ships LHDs and perhaps new submarines in the future.
6. The area presents no perceived increased security risks beyond that which already exists in the Sydney metropolitan area of interest. Berthing large warships at Outer Harbour would be a safer option in terms of Net Explosive Quantity (NEQ) when considering the unlikely event of an accident with explosives on board a warship or submarine. The area of interest is largely industrial and removed from populated areas.
7. Any plan for relocation would be subject to the normal risk analysis as part of capability scoping studies.

Training Areas

8. Port Kembla remains in close proximity to the RAN's Eastern Australian Exercise Areas (EAXA) which extend from north of Sydney to the south of Jervis Bay. The exercise area is utilised by ships, submarines and aircraft for training in preparation for attaining their operational levels of readiness for deployment.

Strategic Review and Options

9. *The Australian Defence Force Posture Review* of March 2012 (the Review) by Allan Hawke and Ric Smith identified the need to relocate only the LHDs away from Sydney in the longer term noting that, in the short term, given its excellent infrastructure and support capacity, and the current lack of alternatives, FBE in Sydney Harbour was the only viable option for LHD home-port basing.
10. In the longer term, the Review flagged the need for an alternative location on the east coast. It argued, operational advantages may be gained through closer proximity to Army units and potential operating areas, while also enhancing capability sustainment requirements and relieving pressure on Navy's continued use of Fleet Base East.
11. The Review also forecast the Navy requirement and the need to base some of the future 12 new submarines on the east coast. Nevertheless, the Review's cursory glance at possible east coast locations for a "supplementary" fleet base included Brisbane, Jervis Bay, Newcastle, Townsville and Westernport Bay.
12. The Review ruled out all the options except Brisbane. To that end, Brisbane was considered by the authors to be the "most promising location for a new fleet base on the east coast that would be an appropriate home-port for both the Future Submarines and the large amphibious ships". It further noted that "a supplementary fleet base could be developed at a new reclaimed land site extending further into Moreton Bay from the current facilities and linked to the Port of Brisbane by a causeway". However, the Review gave no indication nor did it mention the challenging navigation required for deep draft vessels including submarines when negotiating the long narrow channels (and shifting sand banks) from Fisherman Islands wharf Facilities throughout Moreton Bay to reach the open sea.
13. Surprisingly, the ADF Posture Review did not even mention Port Kembla, despite its obvious advantages and tremendous potential including; a safe deep harbour easily accessible from the open sea; local heavy industry and logistics support, and its close proximity to the EAXA.
14. Curiously, in August 2013, Sam Bateman published an article in *The Strategist* (a blog site for the Australian Strategic Policy Institute (ASPI)) titled "*The RAN must have a plan to move out of Garden Island*". The author reached the same conclusion as Hawke and Smith, namely a site in the Port of Brisbane. Newcastle and Port Kembla were mentioned and quickly dismissed as having similar problems to those of Sydney!
15. Finally, during the 2013 Federal Election campaign, the then Prime Minister Rudd announced in his last days, just such a plan for a "supplementary" fleet base at the Port of Brisbane.
16. There has been much said and debated about the advantages and disadvantages of home-porting major Fleet amphibious units further north and closer to Army bases. However, there are strong arguments for major Fleet units to be home-ported near their depot level maintenance facilities, training support teams, and training and exercise areas such as the EAXA—supported in this case by NAS Nowra.
17. On the west coast, HMAS Stirling enjoys modern support facilities for ships and submarines. Garrison facilities include, marine support facilities, a training complex for ships and

submarines, helicopter support facilities with a simulated ship landing facility for helicopter crew training etc., and the base is in close proximity to the Western Australian Exercise Area (WAXA) which is to the west of Rottnest Island.

18. Of note, all major Fleet units (including the future AWDs when delivered) are either helicopter capable or designed to carry helicopters; and, NAS Nowra remains the centre of gravity for naval aviation and training.
19. LHD capabilities have a strong emphasis on amphibious and helicopter operations. Therefore, LHDs need to be based on the east coast near the NAS and the EAXA for ease of training to reach essential minimum safety standards in terms of personnel training and materiel state—'minimum level of capability', which also includes the status of flight deck crews and the embarked ship's Army detachment (SAD).
20. Once a ship has attained a satisfactory level assessed by the Fleet training staff, the ship is then cleared to deploy for much more complex amphibious exercises, for example, in the Shoalwater Bay (QLD) exercise area in conjunction with Army and RAAF assets; or, deploy on an operational mission, such as peacekeeping or disaster relief.
21. Of note, transit times for amphibious ships to reach Townsville to affect Army embarkation have been acceptable in the past; indeed the passage north is generally utilised for further readiness training. Consequently, quite apart from wharf upgrades in Townsville to receive LHDs, basing LHDs near the EAXA does not present any new problems.
22. Maintaining a home port, training staff and appropriate maintenance facilities in close geographic proximity to the EAXA and the NAS is the most preferred option for maintaining effective Fleet readiness for all major Fleet units based on the east coast, including the LHDs.

Maintenance Activity

23. Port Kembla presents unrestricted maintenance activity around the clock whereas the GI/Woolloomooloo area is severely constrained in this regard.
24. Fifty percent of Garden Island's boundary is surrounded by low level residential and in more recent years, high level residential units that have a direct line of sight to the Garden Island work area. Noise pollution from ship maintenance activities presents significant problems for residents.

Captain Cook Graving Dock

25. The dry dock at GI has been a vital strategic asset both in defence terms (and in modern day commercial) since Prime Minister R.G. Menzies announced in Parliament on 1 May 1940 the need for such a strategic asset. Work commenced December 1940 and completed in time for the emergency docking of HMS Illustrious on 2 March 1945.
26. To this day, Singapore would be the nearest comparable capability.

27. The Commonwealth would need to give serious consideration to either preserving the present commercial arrangements for the dry dock or examine options for the construction of a similar dry dock elsewhere—*a site to be determined on the east coast which meets commercial demands but complies with strategic Defence requirements.*
28. Effectively, the Captain Cook Dock or its replacement needs to be available at short notice for dockings of large naval ships such as the LHDs, visiting warships of foreign navies of similar or larger size, and commercial vessels of the large cruise ship variety.

UPGRADE OF WHARVES AND FACILITIES

29. Wharf upgrades would be necessary in Port Kembla Outer Harbour to reflect the naval requirement in terms of ship types, berthing/loading/weight specifications etc., so as to facilitate military operations. A small extension to the eastern breakwater may need to be considered.
30. Naval operations might include, but would not be limited to, the loading of armoured vehicles, use of a roll-on/roll-off facility for LHD operations, and helicopter operations. A slipway similar to the BAE Systems facility in Western Australia, south of Fremantle, would need to be built to cater for Frigates (FFG/FFH) and Air Warfare Destroyer (AWD) size ships. It is noteworthy that the WA facility also handles Collins Class submarines.
31. Alternatively, given the surrounding land at Port Kembla, the relocation project could include a replacement dry-dock for Captain Cook Dock.

Infrastructure Expenditure and Proposed Development by NSW Government

32. NSW Ports is planning for the development of the Outer Harbour, which will provide additional land and berthing facilities to cater for 'future trade growth'. In 2011, the then Minister for Planning, Tony Kelly MLC approved Stage 1A—Reclamation Works which are currently being undertaken in Outer Harbour. There are concurrent Concept and Project Approvals under the former Part 3A of the Environmental Planning & Assessment Act for the entire Concept Plan and Stage 1 of the Outer Harbour Development respectively (Application No. 08_0249).
33. A detailed Environmental Assessment report was prepared which considered the potential impacts of the development on a range of factors: *sediment and water quality, hydrodynamic processes, aquatic and terrestrial ecology, road and rail, noise, air quality and cultural heritage.*
34. Although Minister Kelly granted approvals for the Concept Plan and Stage 1 of the development, the scope of the Stage 1A Reclamation Works does **NOT** include any of the following activities: *berth construction, dredging, placement of harbour sediments, pavement construction, installation of cargo handling infrastructure (i.e. conveyors, ship loaders, cranes, etc.), road construction, rail construction, installation of a new acid pipeline, installation of services, stormwater infrastructure or landscaping.*
35. In May 2013, the NSW Government finalised new planning controls for Port Botany and Port Kembla to reflect the fact these two ports were transitioning to a private long-term leasehold operation.

36. Coalition Governments presently in power at both State and Federal levels are now provided with a window of opportunity (and a cooperative environment) for negotiated outcomes with respect to land acquisitions, leasing arrangements etc. The NSW Government could derive some benefits from Commonwealth assets shed at Woolloomooloo, GI and Potts Point. Greater access to berthing arrangements for cruise ships would add value to the NSW economy.
37. The proposed relocation to Port Kembla would to a large extent, provide a much needed solution for job creation in the region; particularly in light of the downsizing of BlueScope Steel. These newly created jobs resulting from the relocation project would translate to sustainable jobs over the longer term given the ongoing increased Defence presence and its requirements. Put simply, the relocation would address many of the problems concerning high unemployment in the region—Labor heartland which has been largely neglected by both Federal and State Labor over many decades.
38. A snapshot of the Wollongong Local Government Area (LGA) derived from Australian Bureau of Statistics (ABS) data 30 May 2013 and the Parliamentary Library reveal the following:

Population	201,215
Median Age	38.2
Average Wage and Salary income (weekly, pre-tax)	\$2,037
Average mortgage repayment (monthly)	\$958
Average weekly rent	\$259
Unemployment	7%
Youth Unemployment (15-24 years)	20.3%
Participation rate	56.8%
Labour force	89,050

The Illawarra and South Coast Support Facilities

39. In addition to an established Defence presence, the Illawarra region has advanced manufacturing; business services/shared services; clean technologies; creative industries; education and research; funds administration; health, aged care and community services; information and communication technology; logistics; mining technology and services; and, tourism.
40. Of note, the rail link extends to Port Kembla Harbour.

An existing Defence presence

41. The Illawarra region and the South Coast have a long history of supporting Defence activities, and more particularly, Navy. The region has provided excellent support to RAN requirements in terms of logistics, engineering and operational needs.

42. The successful relocation of the Australian Hydrographic Service (formerly RAN Hydrographic Office) from North Sydney to Wollongong (1994) may provide a blueprint for any cost benefit analysis to confirm recurrent cost savings to the Commonwealth.
43. NAS Nowra and the training establishment HMAS Creswell at Jervis Bay both continue to provide excellent opportunities for local industries and small business. This includes employment opportunities vital not only to the community for jobs, but also sustainment of the Defence support capabilities in the Illawarra and South Coast.
44. Of note, the NSW SES has its Headquarters and support facilities located in the Wollongong LGA.

A MORE AFFORDABLE AND ENVIABLE COASTAL LIFESTYLE

45. Productivity is inextricably linked to workplace satisfaction and well-being. Workplace satisfaction and well-being are key components to workforce morale. RAN Members are no different and as a consequence, if relocation is affected to the Illawarra, RAN Members and families would enjoy a much more affordable and enviable coastal lifestyle.
46. In that regard, it was further observed by Bateman that, the impact on Navy personnel issues also should be considered in the maintenance of GI as a naval base. In fact, he noted that senior naval officers might be the only ones able to afford accommodation close to Garden Island, whereas junior officers, non-commissioned officers and sailors are forced to live in the outer suburbs with long commute times [and distances] to work. In addition, parking near Garden Island is notoriously difficult.

SUMMARY

47. Noting the planning activities by NSW Ports with early stages of development of Outer Harbour Port Kembla now underway, a window of opportunity may exist for the Commonwealth to engage the NSW Government in order to facilitate the relocation of the principal east coast naval base of the RAN (and home port to many of the RAN's major ships), to Port Kembla.
48. The RAN's principle administrative, training and logistics support activities undertaken by HMAS Kuttubul also should be relocated to the Illawarra.
49. Although there would be considerable infrastructure costs to recreate facilities for Navy to operate out of Port Kembla, the relocation alone would create significant economic short-to-medium term prosperity and much needed jobs in the Illawarra.
50. Further, the placement of Navy in the Wollongong LGA would not only provide potential recurrent cost savings over the long term, but also it would provide significant economic input into a region which has been neglected by successive State and Federal Labor Governments.
51. The NSW Government could derive some benefits from assets shed by the Commonwealth at Woolloomooloo, GI and Potts Point. Greater access to berthing arrangements for cruise ships would add value to the NSW economy.

RECOMMENDATION

52. It is recommended that the RAN's primary support base FBE be relocated from GI Sydney to Port Kembla Harbour.

John W. Wells

Attachments:

- 1 Aerial Maps - Port Kembla & Surrounding Areas
- 2 Biographical Details – John W. Wells

Acknowledgements:

- 1 ABS data 30 May 2013 and the *Parliamentary Library* Canberra.
- 2 NSW Government Website – *Planning & Infrastructure – Approved Plans – Draft Plans and Policies* as at 7 April 2014
- 3 "*ADF Posture Review*" by Alan Hawke and Ric Smith date 30 March 2012
- 4 "*The RAN must have a plan to move out of Garden Island*" by Sam Bateman August 2013 published by ASPI.



**Port Kembla
&
Surrounding
Areas**



Google earth

feet 4000
km 1



Biographical Details

JOHN W. WELLS

John was born in Brisbane, Queensland. Having joined the Navy in July 1967, initial training was conducted at HMAS NIRMBA and then HMAS LEEUWIN as a Topman before being selected to attend the Royal Australian Naval College (RANC) in 1970. As a junior officer under training, he served in HMA Ships ANZAC, HOBART, SYDNEY, MELBOURNE, VAMPIRE, TORRENS, STALWART; and HMA Submarine OVENS. After completion of Officer-of-Watch application courses in the United Kingdom, he enjoyed a variety of postings throughout his career, most of which were sea-going.

In 1977 he commanded the patrol boat HMAS ATTACK based in Darwin, and some six months later transferred his command to HMAS ARDENT and was appointed Commander of the Third Australian Patrol Boat Squadron in Darwin. From 1978 to 1980, he served as Navigating Officer of the destroyer escort HMAS DERWENT after which he was posted as an instructor at the Navigation School, HMAS WATON.

In 1981, he was directed to take command of the patrol boat HMAS BOMBARD, at short notice; and as a consequence, undertook Bass Strait oil rig surveillance (BSORS) patrols as part of Operation Estes for a period of about eight months. After a short stint as Staff Officer Reserves (Sydney Port Division), John was posted on course to the United Kingdom in 1982 where he qualified as a Principal Warfare Officer (Anti-submarine Warfare) training in HM Ships BATTLEAXE and CHARYBDIS. On completion of the 12 month warfare course at HMS DRYAD, he served for two years on exchange duties at sea with the Royal Navy in HM Ships PLYMOUTH and AURORA.

Upon return to Australia in 1985, he was posted as the Anti-submarine Warfare desk officer to the Director of Naval User Requirements in Canberra. From 1987 to 1988 he served as Executive Officer of the training ship HMAS JERVIS BAY. He returned to Canberra as Staff Officer Administration to the Director of Trials (Defence Science and Technology Organisation) and for a period of 12 months, assumed the additional duty of Director of Trials (Army)!

From 1991 to 1992, he was a Visiting Fellow at the Strategic and Defence Studies Centre, Australian National University (ANU). In January 1993, he was seconded for 12 months to the Strategic Policy and Planning Branch of the International Policy Division in Defence Central where he was, inter alia, desk officer for Australian Defence Force Peacekeeping Policy.

During the period February to May 1994, he attended the 36th Annual Senior Officers Combined Expeditionary Warfare Planning Course at the United States Naval Amphibious School at Coronado, California. On the 28 June 1994 he assumed command of the amphibious ship HMAS TOBRUK. One of the highlights of his twenty-one months in command included the ship's participation in Operation Lagoon, a peace keeping mission to Bougainville. After commanding TOBRUK, John joined the Naval Warfare Branch as Director of Surface and Air Warfare at Maritime Headquarters in Sydney. In 1998 he then joined the directing staff at the RAN Staff College as an instructor in Military Strategy and tutor for the Master of Business Administration program administered through Queensland University of Technology. John retired from the Navy in September 2000.

In the corporate world, John joined Medico-Legal Associates for a period of four years as General Manager. He then undertook consultancies with EPTec PTY LTD and TENIX PTY LTD until 2007 culminating in the award of the Navy's LHD amphibious ships' contract to TENIX and Navantia. An opportunity presented itself for John to undertake full-time Reserve contractual work and consequently he was posted as Director of Policing and Security-Navy (and Naval Provost Marshal) from June 2008 until July 2010.

A Master Mariner Foreign-Going (Certificate of Service No 331), John is a graduate of the Joint Services Staff College (JSSC 46/92) and the RAAF Staff College External Studies Staff Course (1979). His academic achievements include a Bachelor of Arts Degree (Economics, Politics and History) from the University of Queensland (1986), a Diploma of Applied Science (Oceanography) from RANC (1986), a Graduate Diploma in Strategic Studies from the JSSC (1992), and a Master of Business Administration (Human Resource Management and International Business) from the University of Southern Queensland (1994). He is the author of *Antarctic Resources: A Dichotomy of Interest*, published by ANU.

John thoroughly enjoyed his 35 years in the Royal Australian Navy, and would do it all over again! Nevertheless, in retirement he takes timeout to enjoy sailing, reading, winemaking and occasional peripheral political activities.

March 2014

Attachment B

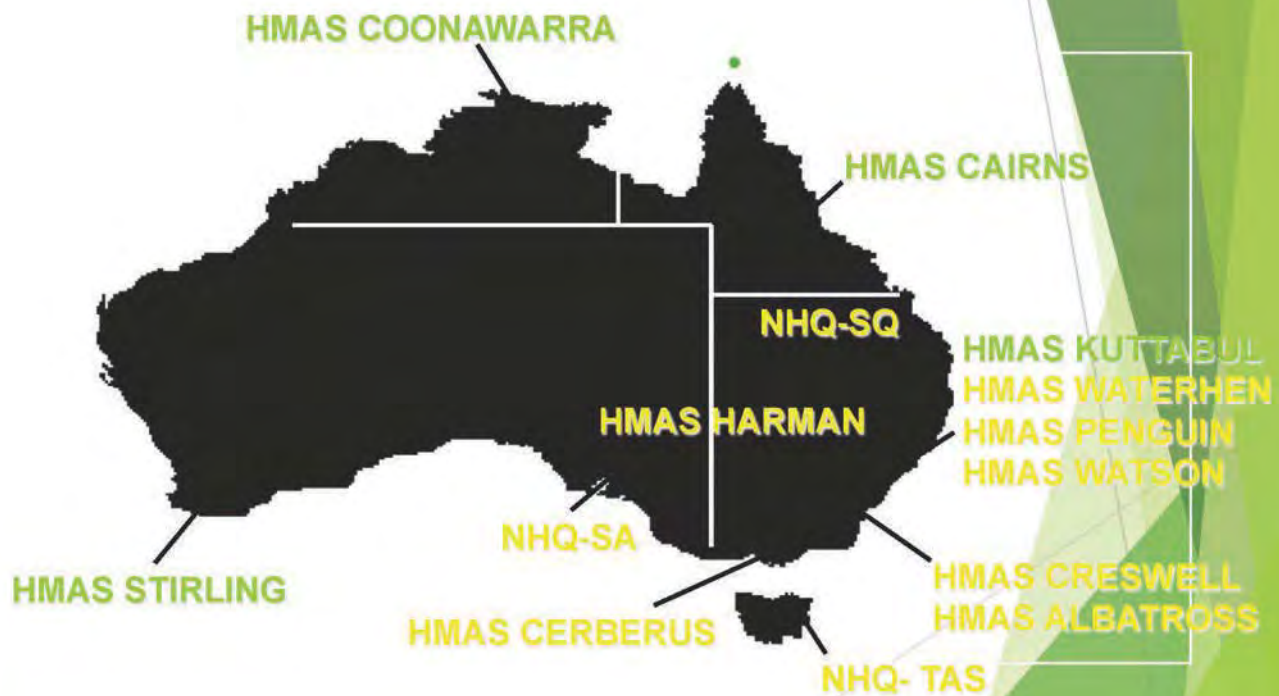
Port Services - Sydney

Dr Hawke Brief 12 SEP 2011

Topics for Discussion

- ▶ Areas of Operation
- ▶ Duties and Responsibilities of PSM-EAST
- ▶ Current situation at FBE
- ▶ Major Activities/Upgrades
- ▶ The Future of GI/FBE
- ▶ Cruise Shipping in Sydney Harbour likely impacts on FBE
- ▶ The shape of things to come

AREAS OF OPERATION



Summary of Duties and Responsibilities

- ▶ Naval Pilot - East Coast
- ▶ Manage All Naval movements in Sydney
- ▶ Support Craft Contract - East Coast - Gladstone to Portland
- ▶ Port Services and Logistic liaison for ship visits - East Coast
- ▶ Port Security
- ▶ Superintendent for Naval Waters in Port Jackson
- ▶ Port Management - Navy Site Manager for G.I./FBE
 - ▶ Environmental
 - ▶ Heritage
 - ▶ Water
 - ▶ Power
 - ▶ Sewage
 - ▶ Security

Summary of Duties and Responsibilities

- ▶ Committees:
 - ▶ SYDNEY Ports Security C.
 - ▶ NSW Maritime Executive
 - ▶ NSW Maritime Port Security C.
 - ▶ SYDNEY Ports Oil Spill Task Working Group
 - ▶ GID Redevelopment Committee
 - ▶ HMAS KUTTABUL Base Management Forum
 - ▶ GID Security Committee
 - ▶ Attend regional port safety meetings
 - ▶ Visiting Ships Program - Nuclear

Home Ported Major Fleet Units

- ▶ Total Berths = 11
- ▶ 2007-2011
 - ▶ Increase from 10-11 Units
 - ▶ 1394m - 1637m
- ▶ 2015-2018
 - ▶ Maintain 11 units
 - ▶ 1637m - 1840m
 - ▶ Not including Decommissioned hulls (many ships to pay off over the next 10 years so another 200 metres required. Potential Visual Pollution problem.



Current situation at FBE

- ▶ Ageing infrastructure
- ▶ Wharf Congestion
- ▶ Conflicting Space Requirements - sub fenders, cherry pickers etc
- ▶ COMCARE
- ▶ Environmental Issues - noise pollution huge problem with Potts Point and Finger Wharf - resident action group formed
- ▶ Noise pollution caused by Jason pistols, ships' air conditioning systems and tug operations
- ▶ EPA regulations of 55dB noise after 1800 constantly breached by ships alongside
- ▶ Heavy maintenance being conducted on FB1-3
- ▶ Potential oil spills can get under Finger Wharf as occurred recently and that affects restaurant and hotel trade

Major Activities and Upgrades

- ▶ Rolling program of upgrades and maintenance including:
 - ▶ **S5361 & S5106 - Maintenance Dredging**

Dredging of wharf areas around Fleet Base East, East and West Dock, Cruiser Wharf, Oil Wharf, Gun Wharf and Navigational Channel. Major disruption to wharf activities expected. Potentially combine dredging zones with subsidence projects.
 - ▶ **S5360 & S5368 Subsidence Remediation**

Carry out remediation works to FB 1 South to FB 2, West dock, Oil Wharf, Cruiser Wharf and East Dock Wharf. Major disruption to wharf activities. Ongoing
 - ▶ Major works carried out on Oil Wharf but Cruiser Wharf and East Wall in need of urgent repairs

The future of FBE/G.I.

- ▶ Strategic Upgrade of Garden Island expected to cost abt \$280M and done in two stages out to 2025
- ▶ Exact shape of post THALES Lease still unknown
 - ▶ Upgraded facilities at great cost
 - ▶ Oil and Cruiser Wharves currently condemned
 - ▶ Cranes on East and West Walls and Cruiser Wharves unserviceable
 - ▶ West Wall limited load to 7 tonnes
 - ▶ Hammerhead Crane condemned since 1996

Cruise Shipping in Sydney Harbour likely impacts on G.I.





Cruise Shipping in Sydney Harbour

- ▶ Cruise ship industry growth is expected to continue grow despite the global economic crisis.
- ▶ Future growth of the industry is expected to realise an increase in the size and passenger capacity of cruise ships.
- ▶ Ships of 300-350 metres length increasingly common, Air drafts will determine that they will be unable to pass under the Harbour Bridge to berth at commercial cruise ship facilities west of the Harbour bridge.
- ▶ The Overseas Passenger Terminal (OPT) located at Circular Quay is the only commercial berth on the eastern side of the Harbour Bridge.
- ▶ Apart from *Queen Mary 2*, the OPT berth pocket is able to support large cruise ships now operating around Australia.
- ▶ Single OPT berth is currently not operating to capacity, however current industry predictions suggest this will be reached around 2015.

Cruise Shipping in Sydney Harbour

- ▶ FBE/GI seen by cruise ship operators as an attractive berthing alternative, due to size, location and facilities.
- ▶ Berth space in FBE/GI is limited at peak periods and now further constrained with the introduction of LHD into service
- ▶ Cruise ship operations at FBE/G.I. carry significant imposts on RAN operations

Cruise Shipping in Sydney Harbour - Outcomes

- ▶ Navy currently represented on SHFSA Cruise Ship Terminal Steering Committee
- ▶ Eastern options are being monitored carefully
- ▶ Impost on Navy's activities recognised by industry
- ▶ Discussions ongoing
- ▶ EMS mooring can be reactivated

Shape of ships to come in 2015



HMAS CHOULES



On the way!



Attachment C

GARDEN ISLAND



GI PROJECTS

- **FBE / GI Redevelopment and LHD & AWD Project Facilities Elements**
Scope of work relies partly on "GI Strategic Accommodation Management Plan" (SAMP) recommendations (agreed by Navy) including Randwick.
- Thales lease and GMC aspects interwoven. Navy and DSG working to resolve future GI management solution. **LHD project funding for training facilities.** LHD Training Centre at Randwick (not in LHD project scope) is unfunded – need approx ~\$30m in FY12-13 & 13-14. Current predictions as follows:

Project	DBC	Govt approval	PWC	Construction	
C8889 AWD -	\$113m	Aug 11	Achieved	Jun/Jul 12	Jan 13 – Dec 15
C8911 LHD -	\$39.66m	Aug 11	Achieved	Jun/Jul 12	Jan 13 – May 15
N2216 GIDR -	\$272m	Jun 13	Jun 14	Aug 15	Jan 16 – Dec 19



CHOWDER BAY NFI

■ Chowder Bay NFI – BIG ISSUE!

- Need to construct F44 storage to support LHDs based in Sydney
- Consultants report (31 Aug 11) states that condition of existing 70+ year old F76 tanks is such that they should be replaced, while adding new F44 tanks.
- MCF provision increased to \$60m.
- More recent assessment indicates F76 are OK and not in need of immediate replacement. DGLOG-N engaged on way ahead, including probable need for alternate storage facilities as interim measure.



BERTH CAPACITY AT FBE /GI

FBE 1-3	=	560 m
FBE 4-5	=	310 m
OW	=	157 m
CW	=	270 m*
EDW	=	190 m*
WDW	=	185 m

Total = 1672 metres

But Navy needs close to 2000 metres to accommodate ships that are to decommission in the near future. Please note 2 x LHD and 3 x AWD need alongside berths. They cannot nest together



SHIP CHARACTERISTICS (1)

■ HMAS Choules

- LOA 177 metres (cf LSH = 126 metres); beam 26 metres
- draught 6.0 metres (full load); docked down 9.43m



SHIP CHARACTERISTICS (2)

■ LHDs (Canberra & Adelaide) – first arrives Dec 13

- LOA 231 metres (cf LPA = 168 metres); beam 32 metres
- draught 7.18 metres (full load)



SHIP CHARACTERISTICS (3)

- DDGs (*Hobart, Brisbane & Sydney*) – first ship 2017
147 metres (cf FFG = 138 metres); beam 17.5 metres
- draught 5.0 metres
- LOA



GI BERTH DEMAND 2012

- Crude metric of maximum demand for all Sydney-based ships
(ignoring visiting ship requirements and rafting of smaller ships)
= sum of ship lengths plus berthing interval:

■ LSD = 1 x 177m = 177m	+ 1 x 20m	ideally = 197m
■ LSH = 1 x 126m = 126m	+ 20m	ideally = 166m
■ FFG = 4 x 138m = 552m	+ 4 x 10m	ideally = 592m
■ FFH = 3 x 118m = 354m	+ 3 x 10m	ideally = 384m
■ AOR = 1 x 157m = 157m	+ 20m	ideally = 177m
■ SB = 1 x 106m = 106m	+ 10m	ideally = 116m
TOTAL	= 1472m	ideally = 1632m

Note: 1. Berth space available = 1672 metres (using Thales berths)

2. Peak challenges managed by rafting some ships and reducing berthing interval.

3. No allowance for de-commissioned ships (eg LPA)

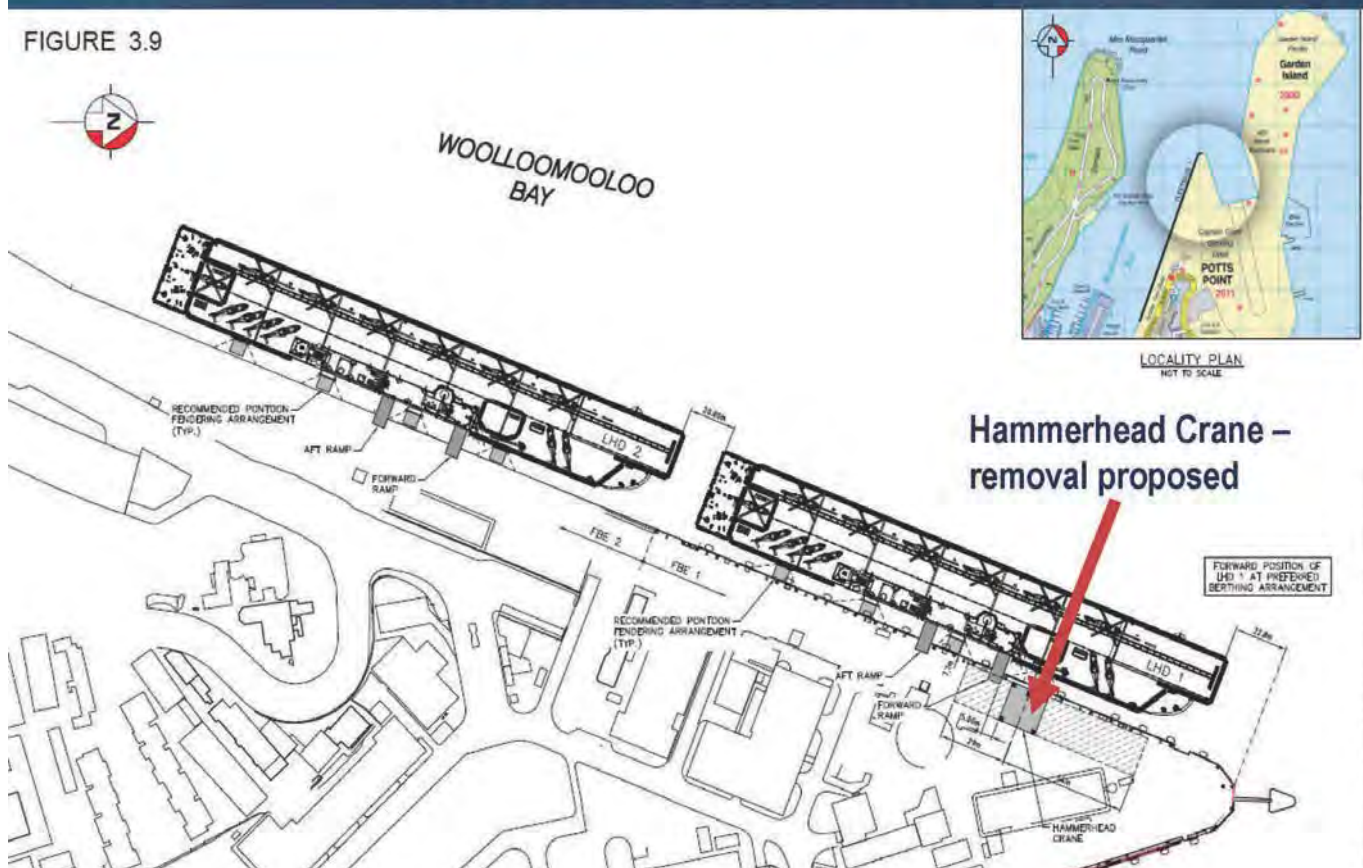


The two LHDs will fully occupy FBE berths 1-3 for a considerable period each year, and particularly during the annual leave and workup period from Dec-Feb.



LHDs WILL BERTH AT FBE 1-3

FIGURE 3.9



GI BERTH DEMAND 2020

- LHDs will not be able to raft up, and will be largely restricted to FBE 1-3 as regular berths – with berthing interval of 50m to allow LCM1E ops from the dock.
- AWDs in service – all FFGs paid off. One FFH has relocated to WA. Assumes an LSD-type vessel remains. CCSM forward deployed more regularly.
- LHD = 2 x 231m = 462m + 2 x 50m ideally = 562m (= all of FBE 1-3)
- LSD = 1 x 176m = 176m + 40m ideally = 216m
- AWD = 3 x 147m = 441m + 3 x 10m ideally = 571m
- FFH = 2 x 118m = 236m + 2 x 10m ideally = 256m
- AOR = 1 x 157m = 157m + 20m ideally = 177m (possibly bigger)
- CCSM = 1 x 78m = 78m + 10m ideally = 88m

TOTAL = 1550m ideally = 1770m

Note: 1. Berth space available = 1672 metres.

2. Decommissioned ships must move from GI, for disposal.



NAVY BERTH UTILISATION – 2008-2011

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
% utilised (AVERAGED OVER 4 YEARS)	94	92	84	61	58	63	72	77	73	82	76	90

BERTHS	1N	1S	2	3	4	5	WD	ED	CW	OW
Average Navy Use (days p.a.)	321	292	289	271	272	236	303	178	238	256
Average Days Available p.a.	346	361	358	361	362	312	352	348	358	296
% Average Utilisation Rate	93	81	81	75	75	76	86	51	67	87

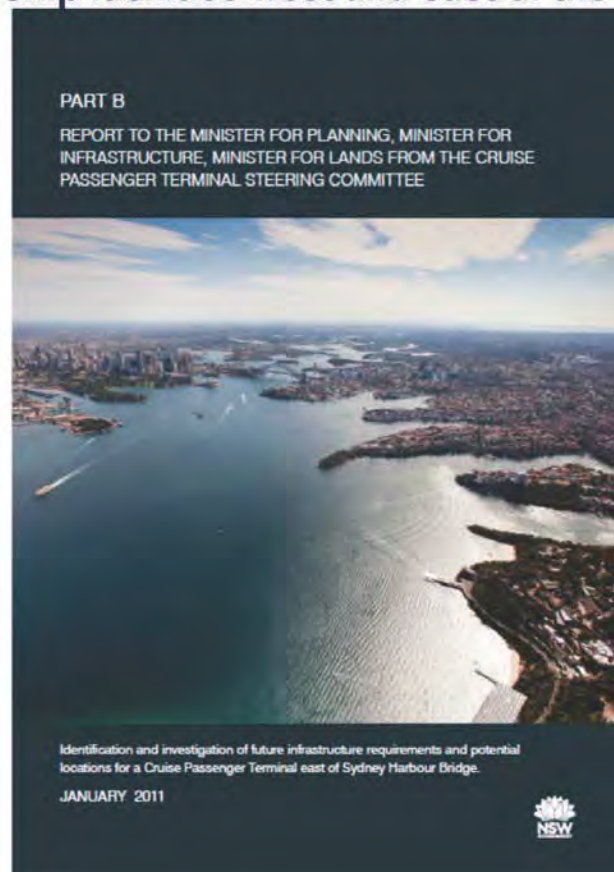


SO WHAT?

- Adequate berth space available now for the current Sydney-based Fleet and larger planned force beyond 2020, during peak periods (Dec-Feb annually)
- Flexibility of berth allocation complicated by larger LHDs and LSD.
- Continuous berth length of FBE 1-3 (560m) more important than ever.
- Access to FBE 4-5 berths when two LHDs are alongside will be challenging – may determine one LHD uses Cruiser Wharf more regularly.
- Collins Class SM berthing will be confined to West Dock Wall.
- Current ‘good neighbour’ policy to avoid noise impact on local residents will continue - major maintenance work will be conducted at FBE 1, Oil Wharf and Cruiser Wharf. However maintenance has also been regularly conducted south of FB1-2



- NSW Government “Passenger Cruise Terminal Steering Committee” study in 2009-11 addressed cruise ship facilities west and east of the Harbour Bridge.
- Part B report showed major increase in demand for berths east of the Harbour Bridge – generally for ships > 80,000 Gross Tonnage
 - Includes Navy paper reflecting concerns with cruise ships berthing at FBE.



CRUISE SHIP DEMAND

- **Characterised by three different visits types:**
- **Home port** – 50% of business; mostly smaller ships berthing west of SHB (but some coming that must berth on eastern side).
- **Seasonal** – larger ships deployed south during northern winter – most need to berth East of SHB (season from Oct-Mar, peaking Dec - Feb).
- **Round the World** – larger ships need berth east of SHB (eg Queen Mary 2).

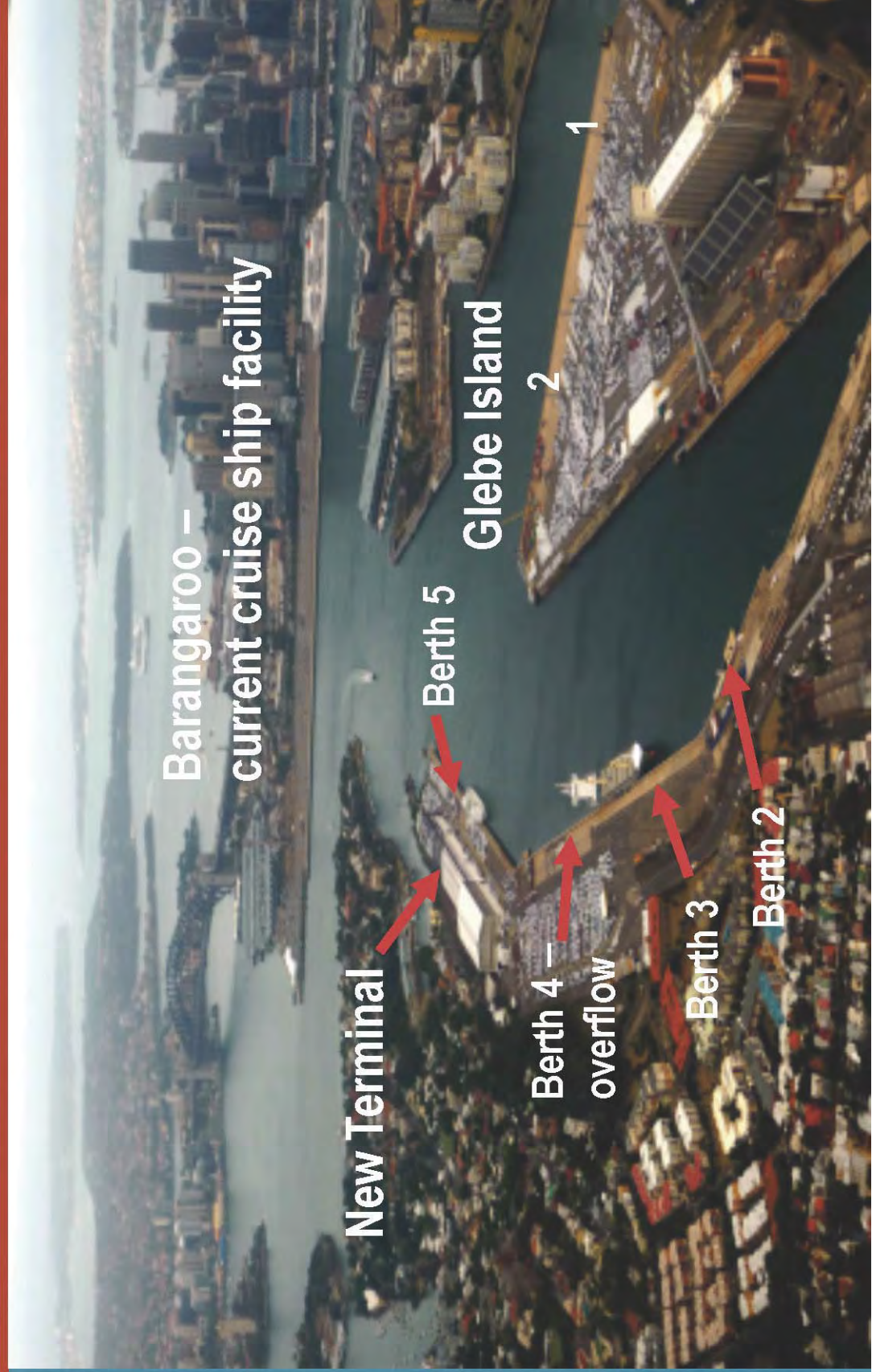


BARANGAROO VISION

Cruise ship berthing and associated terminal and transport relocated to White bay



NSW GOVERNMENT PLAN FOR CRUISE TERMINAL WEST OF HARBOUR BRIDGE



PREDICTED CRUISE SHIP GROWTH IN SYDNEY

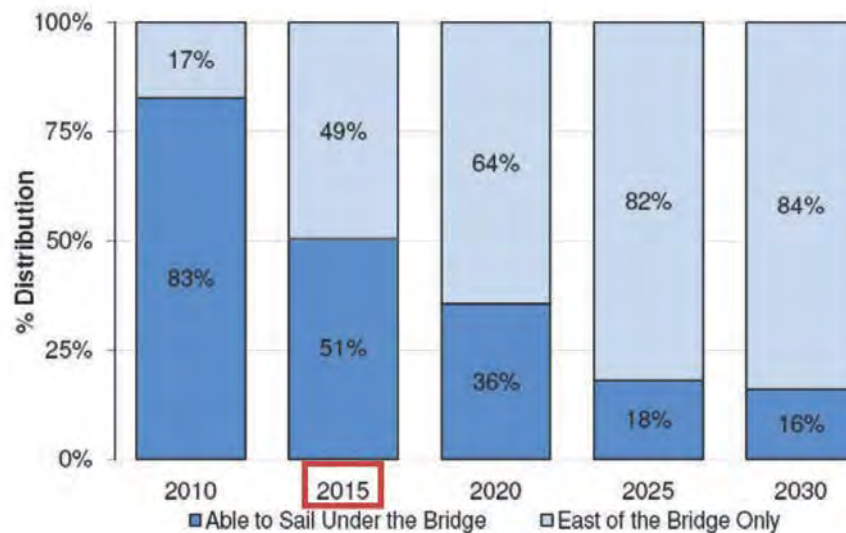
- Most Part B modelling is based on Medium Growth expectation – **cruise industry already sees this trending higher.**
Australia is an “immature market”.

All Operating Segments		Year ended 30 June					Average Yearly Growth				
	Growth Scenarios	2010	to 2015	to 2020	to 2025	to 2030	to 2015	to 2020	to 2025	to 2030	
Vessel Calls	Low Growth	116	270	311	341	375	18.4%	2.9%	1.8%	1.9%	
	Medium Case	116	278	381	466	525	19.1%	6.5%	4.1%	2.4%	
	High Growth	116	287	444	626	773	19.8%	9.1%	7.1%	4.3%	
Passenger numbers	Low Growth	214,730	538,707	670,887	775,325	876,126	20.2%	4.5%	2.9%	2.4%	
	Medium Case	214,730	554,859	822,685	1,062,257	1,230,810	20.9%	8.2%	5.2%	3.0%	
	High Growth	214,730	566,711	954,098	1,426,883	1,813,580	21.4%	11.0%	8.4%	4.9%	



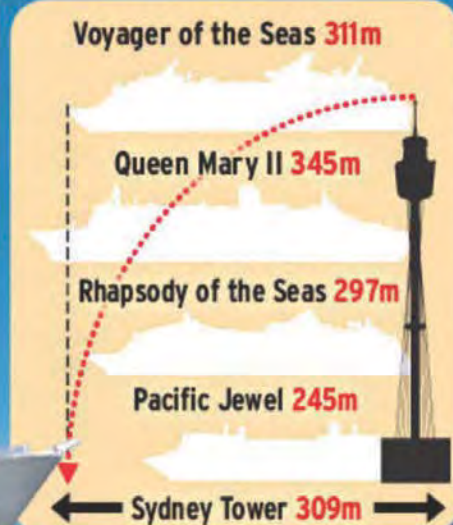
PERCENTAGE OF CALLS WITH AIR DRAFT RESTRICTIONS

■ Based on Medium Growth – it will be higher



Source: GHD, July 2010 - Amended to account for actual Sydney Ports' cruise ship bookings to June 2013

BIGGER SHIPS TO HOMEPORT IN SYDNEY Royal Caribbean's "Voyager of the Seas" – from Nov 2012



HAS ALTERED PART B MEDIUM
GROWTH PREDICTIONS

PART B PREDICTION V REALITY

■ Part B Estimates to 2015 -

All Operating Segments		Year ended 30 June	
	Growth Scenarios	2010	to 2015
Vessel Calls	Low Growth	116	210
	Base Case	116	236
	High Growth	116	259

■ CEO Sydney Ports quoted in latest edition of

Cruise Industry News

2010 - 150 visits

2011 - 214 visits (43% increase)

2012/13 season - 264 (booked – EXCEEDS 2015 HIGH GROWTH PREDICTION)

GAP ANALYSIS – PERIOD OF GREATEST DEMAND COINCIDES WITH NAVY'S!

GAP ANALYSIS SCENARIO 1- MEDIUM GROWTH 2010-2030 OPT

Vessels unable to be serviced based on two day berth for round the world segment														
Medium		July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Growth Scenario	2010	0	0	0	0	0	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	4	0	0	0	0	4
	2020	0	0	0	0	0	3	5	15	0	0	0	0	23
	2025	0	0	0	0	16	19	18	30	10	2	0	0	95
	2030	0	0	0	5	23	28	26	40	16	6	0	0	144

GAP ANALYSIS SCENARIO 2- MEDIUM GROWTH 2010-2030 OPT

Vessels unable to be serviced based on one day berth per vessel per day														
Medium		July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Growth Scenario	2010	0	0	0	0	0	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	2	2	10	0	0	0	0	14
	2025	0	0	0	0	16	18	15	24	7	2	0	0	82
	2030	0	0	0	5	22	26	22	32	13	6	0	0	126

Number of vessels unable to be serviced at OPT per month

CRUISE SHIP VISITS - PAST & PLANNED

■ Past Visits to Fleet Base East

2006	Nov	Pacific Princess	2007	Feb	Queen Mary 2
2008	Feb	Queen Elizabeth 2	2009	Feb	Queen Mary 2
2010	Mar	Queen Mary 2	2011	Feb	Queen Mary 2

■ Current Planned Visits

2012 (Initial request made in Feb 2010)

14 Feb Queen Mary 2

7-8 Mar Queen Mary 2 (went to OPT)

2013 (Initial request made in Apr 11)

7 Mar Queen Mary 2

19 Mar Queen Mary 2 (may both go to OPT)

* Cruise industry seeks berth approx two years ahead, for voyage marketing purposes

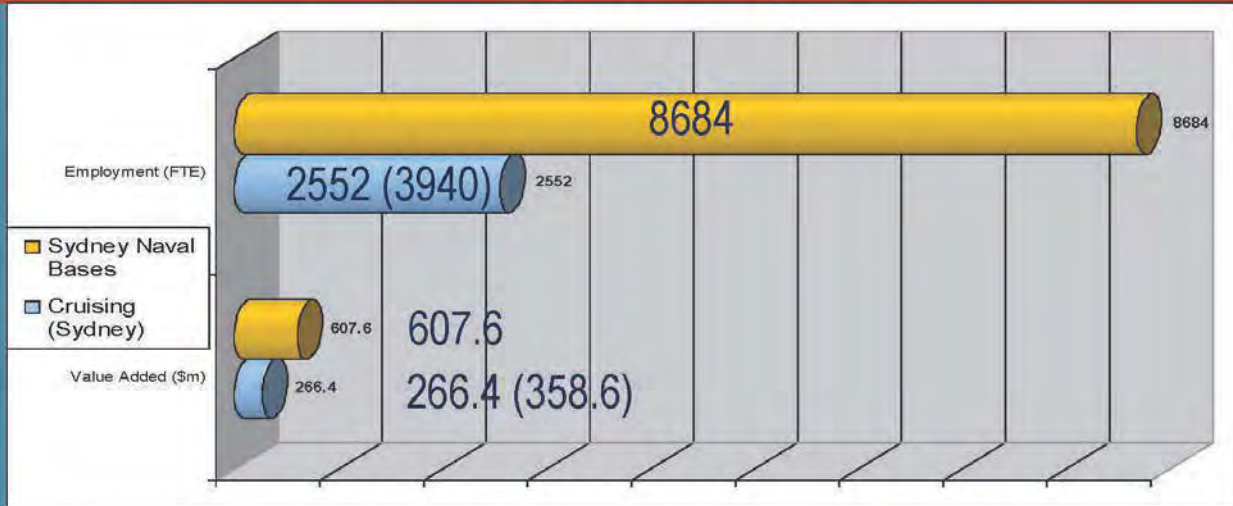


CRUISE SHIP VISIT IMPACT

- Lost berth space – at least 24 hours. Longer impact on use of wharf due construction and removal of temporary AQIS / Customs facilities.
- Potential to put RAN ships to buoy / anchor – OPERATIONAL & MAINTENANCE IMPACTS.
- Wharf choked by large tour coaches and trucks GI access gate & security compromised by cruise ship logistic tail.
- Lost productivity - impact on GI workforce and vehicle movements.
- Adjacent street congestion – resident concerns.
- Added burden for Navy Port Services staff in managing RAN ship movements and wharf usage pre and post visit – opportunity costs to Defence.



ECONOMIC COMPARISON - SYDNEY NAVAL BASES AND CRUISE VISITS: INDUSTRY BENEFIT TO NSW



- Navy estimates - KPMG Report 31 Jan 2011 - based on 2008-09 activity, escalated to 09/10 \$.
- Cruise estimates - AEC Group Report Aug 2011 – based on FY 09/10 activity and prices.
- * Report shows +54% growth in FTE and +35% in value added in 2010/11, despite only +26% growth in visit days
- **Sydney Naval Bases compared to cruise ship visits to Sydney:-**
 - approximately 2.28 times as much Value Added
 - approximately 3.4 times as many FTE



PRESSURE TO DO MUCH MORE - BERTH GUARANTEE NEEDED 18-24 MONTHS AHEAD



HAWKE REVIEW

■ The Independent Review by Dr Allan Hawke was tasked to:

- assess scope to enhance cruise ship access to Garden Island without adversely impacting on its priority role of supporting Navy maritime operations.
- focus on opportunities for greater civil-military cooperation in the use of finite berthing resources for very large vessels in Sydney.
- take into account the increase in use of Garden Island by new, larger Royal Australian Navy ships including the two Canberra class LHDs, the LSD, and three Hobart Class AWDs.
 - These ships will require suitable berthing facilities and will draw on Sydney's strong industry support base for maintenance and repairs.
- assess whether there is scope for a more flexible approach that balances Navy's needs with cruise industry requirements to secure advanced berth bookings for cruise ships visiting Sydney Harbour.

IMPLICATIONS

■ Defence/Navy considered cost, operational, maintenance and personnel implications of providing greater access for cruise ships:

- new facilities required + impact on efficiency and effectiveness if RAN ships compelled to move temporarily or permanently to other berths;
- either in Sydney (eg Glebe Island); or
- other ports (eg Port Kembla).
Options between Eden and Brisbane extremely limited.



HAWKE REVIEW

- Report submitted in Feb 2012.
- 5 recommendations considered.
- Political and media lobbying by Carnival Australia and others still continue. Their expectation is that greater GI access will be forthcoming.
 - Carnival does not represent a consensus cruise industry view.



CONCERNS

1. Flexibility for allocating berths to home-ported RAN ships at FBE / GI - often determined by the nature of planned and emergency repair / maintenance work that must be undertaken with ships alongside - **will reduce during periods when two major ships are berthed at FBE 1-3.**
2. **Greater challenges** will apply in meeting the demand for berths for visiting RAN and foreign warships – more ships at buoys?
3. First LHD has arrived in Sydney. **Industry advised that capacity to berth *Queen Mary 2* in early 2015 would be doubtful.** Mooring established at OPT
4. Any increase in current cruise ship usage will place a major management burden and costs on Navy, and impact on capacity to operate effectively at FBE 1-3. **Costs should be passed on to industry**
5. Defence capacity to provide guaranteed cruise ship access to FBE 1-3 berths, **with the degree of advanced notice sought by the cruise industry,** will reduce beyond 2015.



Attachment D

CAPABILITY STATEMENT

DEFENCE RESEARCH AND TRAINING

The Australian-developed Bushmaster, which is protected by armoured steel developed through the Defence Materials Technology Centre node at UOW.



The University of Wollongong (UOW) has a strong presence in defence-related research and training.

UOW provides post-graduate training for Australian Defence Force (ADF) personnel through its Faculty of Business and the Australian National Centre for Ocean Resources and Security (ANCORS).

UOW is the NSW node for the Defence Materials Technology Centre – a national multi-partner collaborative research centre. The University draws on its traditional strength in materials engineering, particularly steel research, welding and joining to develop improved armour steels for a range of defence uses on land and at sea.

UOW's Centre for Human and Applied Physiology has been working with the Defence Science and Technology Organisation since 2009, when the University received funding to establish a National Centre of Excellence in Physical Employment Standards. A key focus of the centre's work is to accurately evaluate the physical demands of service in military occupations, particularly combat roles, to establish age and gender-neutral standards that will both increase operational capability and reduce injuries.

UOW also applies its expertise to defence projects in:

- Materials engineering for titanium and aluminium alloy development and welding and joining for aircraft components, including the Joint Strike Fighter program
- Electromagnetic technology for the development of lightweight energy-harvesting kits that soldiers can wear in the field
- IT for defence-related cyber security projects
- Intelligent systems for the development of intelligent agent software and neural networks to support real-time combat decisions
- Automation systems for military vehicles

- Robotics that facilitate new advanced aerospace joining, machining and assembly processes
- Surface engineering expertise to machine light alloys with improved wear qualities, for machine tool life extension
- Lean automation skills for manufacturing high cost, low volume components for aerospace uses.

DEFENCE MATERIALS TECHNOLOGY CENTRE

The DMTC NSW node was established at UOW in 2008 with government and industry support to provide the defence industry with materials and manufacturing solutions to enhance Australian defence capability. It draws on UOW's expertise in materials engineering, particularly steelmaking technologies and welding, automation and robotics.

The DMTC's UOW node's projects include developing armour steels for land and marine platforms, including submarines, destroyers and armoured land vehicles.

A key project for the UOW-based node has been the development of improved ballistic and blast protection properties in the armour steel used in the Australian-developed Bushmaster armoured personnel carriers manufactured by Thales in Bendigo.

The research, which is based at UOW, involves a team which includes Thales, the Defence Science Technology Organisation (DSTO), the Australian Nuclear Science and Technology Organisation (ANSTO), steelmaker BlueScope and specialist steel manufacturer Bisalloy, working with UOW researchers.

CONNECT: DEFENCE

**UNIVERSITY OF
WOLLONGONG**
AUSTRALIA



CELEBRATING
40
YEARS OF
INDEPENDENCE

CAPABILITY STATEMENT

DEFENCE RESEARCH AND TRAINING

DEFENCE TRAINING

UOW provides post-graduate training for Australian Defence Force personnel and officers from nations across the Asia-Pacific region on Department of Defence scholarships as part of Australia's aid contribution to neighbouring nations.

UOW's Faculty of Business provides three Masters degrees that qualify for Defence Force Advanced Standing, in Business Administration, Management and Science (Logistics/Project Management). The Logistics/Project Management degree in particular has proved popular with ADF scholarship holders.

Each year the Faculty hosts a number of ADF-sponsored international students who are competitively appointed from defence forces of alliance partners including Indonesia, Malaysia, Pakistan and the Philippines.

The Department of Defence provides 15 scholarships each year for Navy and Coastguard officers from Asia-Pacific nations to undertake the Master of Maritime Policy degree at UOW's Australian Centre for Ocean Resources and Security (ANCORS). In recent years the Department has also funded ANCORS to provide capacity-building courses for nations in East and West Africa.

EUREKA MOMENTS

2011: Professor Abdesselam Bouzerdourn from UOW's School of Electrical, Computer and Telecommunications Engineering won the prestigious Australian Museum Defence Science and Technology Organisation Eureka Prize for Outstanding Science in Support of Defence or National Security in 2011 for developing an imaging system that can "see" objects behind walls, doors and other opaque materials. The "through the wall" surveillance technology has many applications in military, law enforcement, counter terrorism and search-and-rescue situations.

Right: Professor Abdesselam Bouzerdourn, who won the 2011 Eureka prize for his "through the wall" surveillance technology.



2013: The DMTC Armour Applications program, in which UOW's team played a major role, won the 2013 Eureka Prize for Outstanding Science in Safekeeping Australia for its contribution to safety and performance through advancing material and manufacturing techniques for the Bushmaster armoured vehicle. Announcing the winners, Australian Museum Director Frank Howarth pointed out: "These new materials and manufacturing techniques are already protecting Australian troops in Afghanistan, while Australia's Chief Defence Scientist Dr Alex Zelinsky said they were helping protect Australia's army personnel against "blast and ballistic threats". "In addition to researching new protective materials, the team is exploring ways to optimise manufacturing techniques to ensure that the Australian defence industry can deliver high-quality products at an internationally competitive price," Dr Zelinsky said.



Above: UOW researchers including Dr Zengxi Pan (foreground), Joseph Polden (background) and Nathan Larkin developed an innovative robot programming system, which has been successfully implemented by Thales for the manufacture of Bushmaster armoured vehicles.

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Attachment E

CAPABILITY STATEMENT

MARITIME SECURITY

Ship's Company of HMAS Perth observe Indian Navy Ship, INS Sahyadri during a Passage Exercise conducted off the northern coast of Australia.



The Australian National Centre for Ocean Resources and Security (ANCORS) at the University of Wollongong (UOW) has been Australia's leading research, education and training institute in ocean affairs and maritime security for over 20 years.

Established as a partnership between the Royal Australian Navy and UOW as the Centre for Maritime Policy in 1994, ANCORS has grown to be the world's largest ocean policy, law and maritime security research centre. It provides advice and training on ocean issues and maritime security to over 50 countries plus a number of international and regional organisations.

ANCORS continues its close relationship with the Royal Australian Navy, particularly via the RAN's Sea Power Centre – Australia, and the Department of Defence.

It also maintains strong working relationships with Border Protection Command (BPC) and the Australian Customs and Border Protection Service (ACBPS), and other Australian Government agencies.

ANCORS' maritime security activities fall under four main categories:

- Research
- Education
- Training
- Advisory services.

BORDER PROTECTION

ANCORS has collaborated with the Australian Customs and Border Protection Service and Border Protection Command for many years, supporting the Australian Government to enhance national maritime security through improved border protection measures.

Current ANCORS Director Professor Stuart Kaye chaired a review of maritime enforcement legislation on behalf of Defence and Customs that recommended a new single maritime enforcement act, with a number of specific features.

Parliament adopted the Maritime Powers Act 2013 to achieve this objective, and ANCORS subsequently hosted a major engagement activity in Canberra in March 2014 to encourage improved whole-of-government understanding of the new Act.



Professor Stuart Kaye

CONNECT: MARITIME SECURITY

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CAPABILITY STATEMENT

MARITIME SECURITY

CAPACITY-BUILDING WITH A GLOBAL REACH

ANCORS' maritime security capacity-building programs have a global reach, but focus mainly on four maritime regions: South-east Asia, the Indian Ocean, the South-west Pacific and the Gulf of Guinea.

In South-east Asia ANCORS facilitates the Maritime Security Desktop Exercise (MSDE) in Indonesia on behalf of ACBPS and BPC to promote maritime security understanding and cooperation amongst the representatives of 22 Indo-Pacific region countries and territories. It has tested various scenarios related to combating piracy and armed robbery at sea, maritime terrorism and people smuggling at sea.

For more than 15 years ANCORS has partnered with the Defence Cooperation Program to deliver professional short courses, both in the region and within Australia. For example, ANCORS has partnered with the RAN to deliver a Maritime and Strategic Studies Period (MSSP) to the Indonesian Naval Command and Staff College (SESKOAL) annually since 1999 and to the Philippines since 2012.

This is the longest continuously operating Defence Cooperation activity Australia has with Indonesia.

ANCORS has educated naval and coast guard officers from 10 nations in its Master of Maritime Policy degree under the Defence Cooperation Scholarship Program, which is focused on South and South-east Asia and the South-west Pacific.

In all, naval and coast guard officers from 23 countries have completed UOW award courses with ANCORS at Masters or Graduate Certificate levels.

In a major African capacity-building initiative, ANCORS has hosted officials from both East Africa/western Indian Ocean and West Africa on behalf of the aid division of the Department of Foreign Affairs and Trade (DFAT), delivering both professional short course and award course programs in Ocean Governance and Maritime Security.

ANCORS also delivers DFAT-funded programs for Indian Ocean Rim – Association for Regional Cooperation (IOR – ARC) countries, and to the United Nations Office on Drugs and Crime (UNODC) on combating maritime crime in the western Indian Ocean.

In addition, ANCORS has delivered a capacity-building program on maritime security to Gulf of Guinea states in Accra for the Department of Defence and a major Ghana-based Australian grant project researching the relationship between fisheries and maritime security in the Gulf of Guinea.



ANCORS Director Professor Stuart Kaye (left) and Research Fellow Dr Chris Rahman at the Vessel Tracking Laboratory at ANCORS headquarters.

VESSEL TRACKING

Over the past seven years ANCORS and key partners have developed a satellite vessel tracking system that allows Pacific island nations to monitor legal fishing and detect illegal fishing in their territorial waters.

ANCORS facilitates training and research on the use of vessel tracking data to improve maritime domain awareness, an increasingly important element of maritime security.

This initiative includes establishment of a laboratory at ANCORS's headquarters at UOW's Innovation Campus for research, training and demonstration purposes.

The ANCORS VTI was developed in collaboration with the Australian Maritime Safety Authority and industry partners Polestar Space Applications Ltd and L-3 Oceania.

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Attachment F

Housing Affordability in the Illawarra

Overview

Competition to attract and retain highly skilled personnel has become increasingly intense. A key factor in the Illawarra's superiority as a RAN base location for Defence employees is that it offers superb liveability for people of all ages, great locations for people to live, work and play and importantly affordable housing options to suit a diverse range of needs.

The Illawarra offers a variety of residential choices, ranging from quaint coastal villages in the north, beachfront apartments near Wollongong city centre, to executive residences and family homes in leafy suburbs, as well as rural acreages.

One of the key drivers of population growth over the past two decades in the Region has been the relative cost and affordability of housing compared with Greater Sydney. In fact, median rental and purchase property prices in the Illawarra are up to 40% less than Greater Sydney.

While property prices, both rental and purchase, are on average significantly less than Sydney, at a small scale, the regional property market is highly differentiated. This differentiation allows for a range of housing needs to be satisfied from very low cost to premium beachside residences. In general, the areas closest to Sydney and in high amenity locations attract premium prices, with suburbs around the Port Kembla industrial area, Dapto, Unanderra, Albion Park, Warilla and Nowra relatively low cost.

The Port of Port Kembla is in close proximity to a range of housing options. Lower cost areas such as Port Kembla, Warrawong and Cringila are a five minute commute from the Port, with premium locations in the northern suburbs only a 20-30 minute commute, providing ease of access and further lifestyle benefit.

Rental Market

Median rents in Wollongong and Shellharbour LGAs are around 30% cheaper than Greater Sydney, and 15% cheaper in Kiama LGA. Median rents in the Shoalhaven, the cheapest LGA in the Greater Illawarra, were on average around 40% less than Greater Sydney.

Rental costs are highly differentiated at the local scale, with premium markets evident in high amenity areas and locations closest to Sydney; and areas that are still relatively low cost. Table 1 provides a summary of the rental markets by dwelling type for the June quarter 2014.

Table 1 – Median Rental Prices

Suburb*	Dwelling Type	Median price per week	Travel Time (mins)
Thirroul to Clifton	House	\$600	20 – 30
Helensburgh, Otford, Stanwell Park	House	\$510	30
Kiama, Bombo, Jamberoo	House	\$450	30 - 35
Balgownie, Fairy Meadow, Wollongong	House	\$430	20
Unanderra, Mt Kembla, Kembla Grange	House	\$380	10
Warrawong, Cringila, Primbee	House	\$350	5
Thirroul to Clifton	Flat / Unit	\$370	20 – 30
Balgownie, Fairy Meadow	Flat / Unit	\$340	20
Wollongong	Flat / Unit	\$330	10
Warrawong, Cringila, Primbee	Flat / Unit	\$250	5
Warilla, Windang, Barrack Point/Heights	Flat / Unit	\$250	10

**Suburbs selected for illustrative purposes to demonstrate the higher and lower ends of the market*

Table 1 illustrates that there is diversity in the rental market within a reasonable commuting distance of the Port of Port Kembla, with many of these suburbs accessible by both road and rail. There is also ready access to a range of other services including employment and education institutions to satisfy Defence personnel's spouse and family needs, which have been shown to be important factors in Defence personnel retention.

Purchase Prices

The median purchase price of dwellings across the Greater Illawarra is generally considerably lower than for Greater Sydney.

In the latest quarter reported by Housing NSW in their Rent and Sales Report (March Quarter 2014), a median dwelling in Wollongong LGA sold for 29% less than in Greater Sydney, while in Shellharbour the median sale price was 31% lower. The Shoalhaven had the lowest median sale price, 40% lower than Greater Sydney, while Kiama was priced around the same as the greater metropolitan area.

Similar to rental costs identified in **Table 1**, there are significant differentials in the purchase price of dwellings at the local level, with higher value markets in the far north of the Region (from Woonona north), and Kiama LGA (see Maps below) and lower value markets close to the Port of Port Kembla in Berkley, Warrawong and Cringila. Table 2 provides a summary of the purchase prices by dwelling type for the March quarter 2014.

Table 2 – Median Purchase Prices

Suburb*	Dwelling Type	Median sale price	Travel Time (mins)
Thirroul to Clifton	House	\$750,000	20 – 30
Woonona	House	\$620,000	20
Gerringong	House	\$695,000	
Kiama, Bombo, Jamberoo	House	\$650,000	30 - 35
Berkley, Warrawong, Cringila	House	\$315 – 325,000	5
Woonona	Flat / Unit	\$412,000	20
Balgownie, Fairy Meadow	Flat / Unit	\$300,000	20
Wollongong	Flat / Unit	\$395,000	10
Warilla	Flat / Unit	\$275,000	10
Albion Park	Flat / Unit	\$265,000	20

**Suburbs selected for illustrative purposes to demonstrate the higher and lower ends of the market*

Table 2 illustrates that there is diversity in the market within a reasonable commuting distance of Port Kembla to provide families with a choice of dwelling locations dependent on budget and lifestyle needs. It is noted that a number of the suburbs in proximity to Port Kembla have an ageing population, with approximately 17% of residents in Lake Heights aged over 70 and 21% of residents in Windang/Primbee over 70 compared to the NSW State average of 10% (Australian Bureau of Statistics, 2011). The aging population is likely to result in a high turnover of property in suburbs in close proximity to the Port of Port Kembla, providing the opportunity for Defence personnel to access housing in close proximity to their work at reasonable cost.

The NSW State Government has identified the Regional demand for dwellings up to 2031, with the *Illawarra Regional Strategy 2006 – 2031* (Department of Planning, 2006) and the subsequent discussion paper, *Draft Regional Growth and Infrastructure Plan* (NSW Planning and Environment, 2014). The strategic plans propose 45,000 new dwellings across the Illawarra by 2031, with 70% of these dwellings in new release areas. These areas comprise West Dapto and Calderwood, which are within a 15 to 20 minute journey of Port Kembla, along with smaller areas dispersed around Lake Illawarra and further south around Nowra. There is the opportunity for Defence to work with developers to obtain areas of housing and tailor these areas to specifically address Defence personnel's identified needs. These areas would provide a ready source of housing for a future RAN base at Port Kembla.

