



24 July, 2006

The Secretary  
Senate Foreign Affairs, Defence and Trade References Committee  
Suite SG.57  
Parliament House  
CANBERRA ACT 2600



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Dear Sir or Madam:

### **INQUIRY INTO NAVAL SHIPBUILDING IN AUSTRALIA**

The Hunter Economic Development Corporation has prepared the attached submission to the Inquiry Into Naval Shipbuilding in Australia on behalf of a range of stakeholders in the Hunter Region.

Should the Committee require further evidence, the Committee is invited to visit the Hunter Region to enable a public hearing to be attended by a panel of Hunter Region stakeholders.

Sincerely,

Lesley Morris  
Chief Executive Officer





*Hunter Economic  
Development Corporation*

**INQUIRY INTO NAVAL  
SHIPBUILDING IN AUSTRALIA**

**SUBMISSION FROM  
HUNTER REGION, NSW**

**PREPARED BY  
HUNTER ECONOMIC DEVELOPMENT CORPORATION  
JULY 2006**

## **BACKGROUND**

The Senate referred the following matter to the Senate Foreign Affairs, Defence and Trade References Committee for inquiry and report by the last sitting day of 2006:

That the Committee inquire into and report upon the scope and opportunity for naval shipbuilding in Australia and in particular:

- (a) The capacity of the Australian industrial base to construct large Naval vessels over the long term and on a sustainable basis;
- (b) The comparative economic productivity of the Australian shipbuilding industrial base and associated activity with other shipbuilding nations;
- (c) The comparative economic costs of maintaining, repairing and refitting large naval vessels throughout their useful lives when constructed in Australia vice overseas;
- (d) The broader economic development and associated benefits accrued from undertaking the construction of large naval vessels.

The Hunter Region Submission has been prepared by the Hunter Economic Development Corporation on behalf of and using the resources of a range of regional stakeholders, including:

- Hunter Economic Development Corporation
- HunterNet
- Industry Capability Network
- NSW Department of State and Regional Development, Hunter and Central Coast
- NSW Premiers Department
- Hunter Business Chamber
- Regional Land Management Corporation
- Newcastle Port Corporation
- University of Newcastle
- Hunter Institute of Technology

## **INTRODUCTION**

The Hunter Region is Australia's largest regional centre and Australia's sixth largest city. The Region has a long industrial and maritime history and is meeting the challenges of the new millennium by proactively attracting a broader range of wealth creation industries and support services to lever off and complement the traditional industry base.

The wider Hunter Region already supports key defence facilities of RAAF Fighter Base Williamtown and the Army Training Camp Singleton. Supporting these facilities is an established array of industry, community and infrastructure services.

The City of Newcastle has a long history as a maritime port with an existing naval ship building and repair base, a dynamic commercial port and an internationally recognised marine engineering training centre.

The Region's key defence industry stakeholders are working towards a vision for the Region to be:

- an established Naval ship module construction centre and recognised builder of smaller Naval vessels, support craft and water craft,
- a designated Naval repair centre, and
- an international centre for Naval and maritime training.

The capability of Newcastle and the Hunter for naval shipbuilding, as well as maintenance, repair and refit of large naval vessels is explored in the following sections of this submission.

The Hunter Region believes that it is critical to maintain on shore capabilities for construction and through-life support of large naval vessels.

The Hunter Region believes that the eastern seaboard has the skills and infrastructure capabilities to construct, support and maintain large ships and supports the eastern seaboard bid for the construction of the amphibious ships project (JP2048).

The Hunter Region supports a co-operative and collaborative approach to shipbuilding in Australia and has a demonstrated partnership approach to major defence contracts.

## **ADDRESSING THE TERMS OF REFERENCE**

Australia has a significant track record of achievement in naval shipbuilding, repair and maintenance. Adequate skills and infrastructure capability exist on Australia's eastern seaboard to construct, support and maintain large ships.

The record of Australian companies winning international contracts demonstrates Australia's competitiveness. Studies of the impact of major defence projects undertaken by ACIL Tasman (2000 and 2002) have found that Australian naval construction and through life support is internationally competitive.

Construction of large naval vessels in Australia will ensure the retention of skills and capability for life service, repair and upgrade and the competitiveness and viability of Australia's shipbuilding industry.

On-shore construction of large naval vessels provides significant economic benefits to Australia through economic multipliers, increased employment, technology transfers and skills enhancement. The substantial benefits from past construction of large naval vessels in Australia have been quantified in various studies.

## **EXISTING DEFENCE INDUSTRY AND MILITARY LINKS**

The Defence Industry plays a significant role in the Hunter region and its economy, with major military bases and large scale manufacturing projects being undertaken in the area.

The region has a complex and sophisticated defence infrastructure, as well as world competitive aeronautic, engineering and technology capability and a proven track record in defence project delivery.

The Hunter's defence infrastructure includes:

- RAAF Base Williamtown
- Singleton Army Base
- Fort Wallace
- Forgacs Floating Dock
- ADI Facility
- Newcastle Airport

Newcastle is located 60 nautical miles north of Sydney, 23kms south of Williamtown RAAF Fighter Base and close to existing military bases which benefits inter-service communications, housing, recreation, joint exercises and training.

The Port is conveniently located to the military training area where joint service exercises are conducted off the coast from Newcastle.

## **PORT FACILITIES**

The Port of Newcastle is one of Australia's major bulk export ports, with approximately 3,200 shipping movements handling cargo of around 83 million tonnes per annum. It is also the world's largest coal export port, with coal exports representing more than 90% of the total throughput tonnage. As well as bulk exports the Port also currently handles general cargo and some containerised trade.

The Port of Newcastle is a deep water working port with established infrastructure and support services to visiting ships. It is a frequent port-of-call for visiting Australian and foreign navy ships.

The Port of Newcastle is centrally located on the east coast of Australia, approximately 70 nautical miles north of Sydney.

Naval vessels can access the Port of Newcastle 24 hours a day, seven days a week.

The Port, while close to the city, has minimal environmental impact and adds significant value to the attractiveness and character of Newcastle. The Port is the economic and trade centre for the resource rich Hunter Valley and much of the north and northwest of NSW.

Available sites for port-related development are within a short sailing time (maximum 40 mins) to the port entrance and the open sea.

## **PROVEN TRACK RECORD**

Newcastle has a strong heritage and demonstrated capability for the shipbuilding and repair sector with over 300 vessels built (up to 30,000 DWT) and with many hundreds more vessels repaired and maintained in the region.

The region has credentials in managing defence projects, and undertaking technically challenging projects on time and to budget.

Key industry players have the highest quality assurance standards in design and manufacturing, and work closely together on projects requiring rigorous international standards.

Two of Australia's most technically competent defence companies, Forgacs and ADI Limited, lead the Hunter's Defence Alliance. The credentials of these companies include:

### **Forgacs Group of Companies**

- Headquartered in Newcastle and employing more than 500 people nationally.
- One of Australia's major shipbuilding, repair and in-service support companies
- Internationally competitive commercial ship repair business
- One of the largest ship construction facilities in the country located at Newcastle
- Ready for major naval surface ship modular construction

## **ADI Limited**

- A major priming company, key ship systems integrator with critical personnel, facilities and IP
- Employs more people in high end naval engineering than any other Tier 1 naval engineering prime in Australia
- Large modern composite facility for small vessel production and maintenance or fabrication of major surface ship modules

## **INFRASTRUCTURE AND INDUSTRIAL SUPPORT**

Newcastle has a long history as a naval ship building and repair centre. In World War II several RAN ships were constructed at Newcastle's State Dockyard and in more recent times HMAS Tobruk was constructed by Carrington Slipways, 6 Huon Class Minehunters by ADI, Collins Class.

Submarine Modules by ASC, ANZAC Frigate Modules by FORGACS, the conversion and modernisation of LPA Ships HMAS Manoora and Kanimbla by FORGACS and numerous refits and repairs to other RAN vessels.

A wide ranging network of supply and support companies exist about the established naval ship building and repair industries at Newcastle.

## **ATSA**

ATSA Defence Services provides excellence in support for leading edge electronic systems. ATSA provides support in the Australasian region for the Double Eagle Mark II Mine Disposal Vehicle.

## **Avoca Engineering**

Avoca Engineering manufactures high precision components for the Defence, Aerospace and Electronic industries using CNC machines and can machine titanium, aluminium, plastic, brass, copper, stainless, toolsteel.

## **Advitech**

Advitech is an engineering and technology consulting company with experience in the aerospace and defence industries, including mechanical/electrical design/drafting, documentation, engineering investigations, risk management, acoustic monitoring and IT.

## **Asia-Pacific Services**

Asia-Pacific Services are accredited representatives of Irkut Corp for Be200 amphibious aircraft and their advanced UAVs. Manufacturers of marine and aerospace advanced LED markers and lightweight plastic pallets.

## **Cowan Manufacturing**

Cowan Manufacturing is recognised worldwide as a Recompression Chamber Specialist with a predominant focus on Defence activities. Design through to manufacture, installation and training. Fleet issue Australian and US Navies.

## **Donaldson Australia**

Donaldson Australia is Australia's leading provider of filtration solutions for the defence, mining, construction, marine and transport industries. Donaldson supplies air and liquid filtration for APCs, tanks and aviation military applications.

## **Hunternet**

Hunternet acts with strategic leadership of a single voice. Members work together leveraging their skills and expertise to enable them to compete globally and sustain industry in the Hunter.

## **Priestley Electrical**

Priestley Electrical design, manufacture and install electrical switchboards, MCCs and control panels for all defence applications.

## **Puzzle Precision**

Puzzle Precision provides quality electronic assembly services specific to defence high-reliability requirements. Vapour-phase technology optimises soldering uBGAs, RF, microwave, multilayered, flex, ceramic PCBs. Processes based on metallurgy and IPC standards.

## **Sisley Clothing Australia**

Sisley Clothing Australia manufactures Nomex (fire retardant) clothing ranging from Aviation – pilots, aircrew, oil rig staff as well as bomb squads and special tactical response teams.

## **Varley**

Varley's capabilities include major aluminium and steel fabrications, pipeworks, tanks, gangways, logistic containers, ship repair, valve-work, major rebuilds and modifications.

## **Sensation Yachts**

Sensation Yachts has established a superyacht manufacturing, maintenance and service facility at Carrington. The investment in the facility is around \$30 million with 194 jobs expected to be created within the first 3 years with up to 400 jobs in 10 years.

## **Azzura Marine**

Azzura Marine, a major luxury yacht builder, has signed a 10 year deal with the Newcastle Port Corporation to expand its operations to the Port of Newcastle. Private cruising vessels up to 120 metres in length will be built at the superyacht facility and will be marketed and sold both internationally and domestically.



## **INDUSTRY SUPPORT**

The Hunter Region's defence industry has the support of the NSW Government and the 11 local government areas that make up the Hunter.

A number of local bodies work actively to grow defence in the Hunter, including:

- HunterNet Cooperative
- Hunter Economic Development Corporation
- Hunter Business Chamber
- NSW Department of State and Regional Development
- Industry Capability Network
- Industry Development Centre
- Australian Industry Group

## **TRANSPORT & TELECOMMUNICATIONS LINKS**

The Hunter is within easy reach of key national markets and defence establishments via a sophisticated infrastructure network including road, rail, air and telecommunications.

With fast transport links to Sydney and Canberra, Newcastle is easily accessible for defence project managers as well as Sydney based suppliers.

As well as being a major base for the Royal Australian Air Force, Newcastle Airport offers commercial services to Canberra, Sydney, Melbourne, Brisbane and the Gold Coast and intra-state NSW. Newcastle Airport has undergone a major upgrade which has included extending and upgrading the apron, passenger terminals and carparks. This has enabled the Airport to accept B767s giving it international capability.

For medical and other emergencies, two fully equipped Bell helicopters are operated by the Westpac Rescue Helicopter Service on a 24 hour 365 day basis.

A full range of telecommunications services is available with all major carriers having a presence in the area. Local carriers include Ipera and SP Telemedia. Connection to high bandwidth is available through national carriers and local loop carriers.

## **AVAILABLE LAND**

Unlike many other Australian ports, Newcastle has suitable land available with flexibility to accommodate a range of options comprising wharf space only or a fully integrated facility involving wharves, support services, workshops, training facilities, single quarters accommodation and recreation.

The NSW Government created the Regional Land Management Corporation Pty Ltd (RLMC) in April 2003 to manage more than 3,500 hectares of former BHP Billiton and other state owned land on four sites in the Lower Hunter region. This is some of the most valuable and strategically important land in the region.

## **CRITICAL SKILLS SETS**

The Hunter has a wealth of skilled personnel with the University of Newcastle and Hunter Institute of Technology (TAFE) offering several defence related courses. A large pool of ex-service personnel who choose to reside in the Hunter also adds to the labour pool.

### **University of Newcastle**

The Faculty of Engineering and Built Environment (FEBE) is one of the leading faculties of its kind in the world. It brings together the professions of engineering, architecture, building, surveying, industrial design and computer science and conducts professional degree programs in each of these professional disciplines. Its research-led and innovative problem-based teaching programs are carried out at campuses in Newcastle, the Central Coast, Port Macquarie, in Singapore and by distance over the internet.

FEBE is one of the most research-intensive faculties at the University of Newcastle, having attracted approximately 30% of the University's impressive research income over recent years. Indeed, its research performance in engineering is second to none in Australia, as measured by most of the usual indicators, e.g., competitive grant income and publications per full time academic staff member. 'Our focus is on understanding and shaping the world in which we live, improving the way people do things and finding smart solutions for society's problems'. The Faculty hosts the ARC Centre of Complex Dynamical Systems and Control (CDSC), the Special Research Centre for Multiphase Processes, the Key Centre for Bulk Solids and Particulate Technologies, the Research Centre for Coal in Sustainable Development, the Centre for Interdisciplinary Built Environment Research (CIBER), an applied research company - ResTech, and it is also home to nodes of the following Cooperative Research Centres (CRCs): Construction Innovation; eWater; Mining; Integrated Engineering Asset Management; and Bioinformatics.

The Faculty does not have activity specifically in marine engineering, but it does have teaching and research programs which contain components significant to the marine engineering and ship-building industries. These include several elements of mechanical and electrical engineering and logistics and supply chain economics and management. The Faculty is currently embarked on the development of an internet-based post-graduate coursework program in supply engineering, which will be of interest to both the military and civilian sectors, especially heavy industry, mining and public utilities.

### **Hunter Institute of Technology**

The Hunter Institute has a wide range of industrial training available to any prospective firm that wishes to relocate to the Hunter. The courses on offer range from metal fabrication, fitting machining, hi-level welding, electrics, mechanical engineering/ manufacturing, electrical engineering, civil engineering, plastics/ fibre glassing & carbon fibre technology, surveying, drafting trades, marine engineering, ship and boat building. All these skills are very applicable to the Defence industries, especially ship building and repair.

The Engineering faculty of the Hunter Institute is one of the biggest Engineering faculties in Australasia with some 140 full time teachers and over 100 part time teachers. The greatest asset Hunter Institute has is its industrial training capacity. In the year 2006/7 the Institute will have some 190 trade classes studying with an

average of 14 people per class in the electrical and fabrication trade areas. The Institute also has the unique capacity of conducting entry level training up to Advanced Diploma levels in most areas. During the years 2005/06, approximately 480 people were trained in pre-trade courses with an average 80% successful outcome. The Institute is in the unique position to be able to teach full range of complex skills and technologies in post trade and certificate IV levels that are essential for modern defence work.

In addition to defence work, the Region's ready three-shift workforce supports the Hunter's diverse economy including large-scale aluminium, steel, coal, rolling stock manufacture, and electricity supply industries. This means the following world-competitive skills sets and services are all in close proximity:

- Project Management
- Cost Schedule Status Reporting (CS<sup>2</sup>)
- Detailed design
- Engineering
- Maintenance of systems
- Platform and systems integration to minor war vessels
- Ship construction, upgrade and repair
- Outfitting
- Inspection test and evaluation
- Integrated logistics support
- Training
- Quality Assurance

## **PERSONNEL CONSIDERATIONS**

### **Lifestyle**

As Australia's largest regional centre, the Hunter has all the requirements for an affordable, enjoyable lifestyle as evidenced by existing defence personnel residing in Newcastle and Port Stephens. To live in the Hunter's uncongested cities by the sea is to receive the gift of time – big city benefits without the stress and traffic.

The region is vast and divergent. Its natural resources, infrastructure, services, workforce, transport and lifestyle form a powerful and diverse commercial environment.

Commuting times are minimal, allowing personnel and their families more time together.

The climate is temperate all year round, with average temperatures of 15-20c in winter and 20-30c in summer and 6.5 hours of sunshine daily on average.

### **Employment Opportunities**

As a centre for retail, health, tourism, education, information & communication technology, call centres, finance, insurance and professional services, the Hunter is well placed to provide full-time and part-time job opportunities for spouses and dependants of Navy personnel in a range of careers.

## **Education and Training**

Whilst children can attend high standard education facilities from a vast array of public and private primary and high schools, tertiary studies and ongoing learning is available from the renowned University of Newcastle and Hunter Institute of Technology (TAFE).

The University of Newcastle is one of Australia's leading universities with 6 faculties and 23,000 students, and is renowned for its medical, engineering and architecture faculties. The Hunter Institute of Technology (TAFE) offers over 500 courses to 54,400 students across 13 campuses throughout the region.

In addition, as a leader in maritime training, the Hunter has trained most of Australia's best marine engineers while the Region's tertiary training centres have facilities and courses adaptable to suit Navy.

## **Real Estate**

The Hunter has affordable housing and home ownership is higher than the NSW average. Home options include ocean, lake and bay waterfrontages, bush retreats, rural acreages, suburban dreams, inner city terraces and city/waterfront apartments.

## **Medical Support**

Hunter New England Health is a sophisticated medical network, which services the Hunter region, employing over 8,000 people and operating over 24 public hospitals and 12 private hospitals and the full extent of associated services. John Hunter Hospital is a renowned training hospital. In addition the Hunter offers physiotherapy, chiropractic and alternative therapies.

## **Transport**

The Hunter is well serviced by a sophisticated, quality transport infrastructure which includes:

- The fastest growing regional airport in Australia with daily passenger services to the Eastern Seaboard of Australia and Canberra
- A large road network with a core of three main highways giving easy access to Sydney, Canberra and Brisbane
- Freight and passenger rail networks.

## **Other Services**

As a major centre, the Hunter can provide all the support services for religious worship, leisure arts and entertainment, shopping and a vast array of sporting clubs and facilities.