WESTERN AUSTRALIAN GOVERNMENT SUBMISSION

TO THE AUSTRALIAN DEFENCE FORCE POSTURE REVIEW
SUBMISSION TO THE AUSTRALIAN DEFENCE FORCE POSTURE REVIEW BY THE WESTERN AUSTRALIAN GOVERNMENT

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Foreword

The Western Australian Government (Western Australia) welcomes the opportunity to provide further elaboration on its Interim Submission to the Defence Force Posture Review (FPR) provided on 16 September 2011. This Western Australian Submission canvasses views in all areas of State interests.

Western Australia reaﬁrms its commitment to the Commonwealth Government’s strategic priorities. The State continues to support the Australian Defence Force (ADF) through its policies and programs, current and projected facilities, infrastructure and skills base to provide greater opportunities for synergies between the State and the ADF.

Western Australia sees the FPR as a vital and much needed review, given the existing and projected economic and social expansion of North-West Australia and the region’s vulnerability to security challenges.

Western Australia recognises that the international environment is undergoing evolutionary changes. Major power realignments in Asia, coupled with Australia’s rising economic and geopolitical status, mean Australia is no longer on the periphery of the international milieu. Recognising this, Western Australia supports the Department of Defence’s FPR, to ensure assets are correctly positioned to meet Australia’s current and future security challenges.

Despite Western Australia constituting, little more than 10 per cent of the national population, the State continues to be a major contributor to national Gross Domestic Product (GDP). In 2010-2011, Western Australia accounted for more $184 billion (14.4 per cent) of Australian GDP driven primarily by minerals and energy exports. Capacity expansion, regional demand and technological developments are likely to result in increases to these ratios.

The development of the State, particularly the northern Pilbara and Kimberley regions, is accompanied with an increased sense of vulnerability to existing, as well as emerging threats.

Western Australia stresses the importance of developing a greater ADF presence in the State to meet potential security challenges and ensure on-going national security and prosperity. The strategic location of supportive industry and infrastructure in the north-west of Western Australia, accompanied by the current and future planned investment in the infrastructure capacity of the region, also presents an opportunity for the ADF to consider its basing, sustainment and servicing strategies.

1 Department of State Development, Western Australia Economic Profile – July 2011
Executive Summary

Challenges to Western Australian Security

Developments to Western Australia’s economic and social profile are accompanied by an increased vulnerability to security challenges. In general terms, these threats may be seen as either conventional or non-conventional.

The potential for interstate conflict with other nations remains a remote, yet possible contingency for the ADF over the coming decades. Changing power dynamics, traditional nationalistic rivalries, competition for resources, and complex jurisdictional claims, all have the potential, in the long-term, to lead to conflict. The Indo-Pacific region will continue to rise in geopolitical importance as emerging players attempt to assert their rising status. A number of analysts contend the waters adjacent to Western Australia may become a leading strategic theatre, where great power rivalries between India and China may play out.

While the conventional threat to Australia remains negligible in the short-term, non-conventional threats may exploit Western Australia’s advanced economic profile, with potentially devastating consequences.

Western Australia’s size and proximity require considerations beyond traditional security paradigms to other potential contingencies the ADF may face in the future. These may include regional state failure; movement of illicit goods; exploitation of national resources; human smuggling; and the potential effects of climate change, including food and water security challenges.

Western Australian Considerations for Defence

Western Australia is projected to play an increasingly vital role in the national economy. Continued urbanisation and industrialisation of regional economies will sustain demand in the minerals and energy sector. Despite possible market volatilities and new competing sources of commodities, the Kimberley and Pilbara region’s strategic share of iron ore, gas, base metals and uranium, will mean sustained growth and contribution to the national GDP.

The economic expansion of the North-West will stimulate population growth and change. Government initiatives, such as the ‘Pilbara Cities’ vision will create desirable regional hubs, that can accommodate a diversified economic and social base. These trends are likely to be replicated in the Kimberley. These developments will simultaneously serve to create an area of economic and strategic vulnerability, yet also capable of supporting an expanded ADF presence.

Western Australian industry has an existing and developing capacity to meet the requirements of the ADF, demonstrated by contributions of local industries to defence activities such as the docking and maintenance of the Collins Class
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submarines. BAE Systems, Thales, Raytheon Australia, Lockheed Martin, ASC and other prime defence contractors maintain a presence in Perth, with many having plans for expansion. In addition, Austal Ships, a prime naval ship builder has the majority of its Australian capability in Western Australia at the Australian Marine Complex (AMC) in Henderson. A growing number of small to medium sized enterprises (SMEs) also exist, primarily in the marine, electronics and communications sectors, providing synergies with the ADF’s strategic interests.

Beyond the defence industry, technological benefits from other sectors, such as minerals and energy, may complement ADF requirements and be consistent with Defence’s continuing trend towards adopting commercially-driven technology. The Western Australian commercial sector can provide Defence with local industry capability and an advanced workforce honed in systems integration, automation and remote control. Rio Tinto’s ‘Mining for the Future’ strategy will attempt to alleviate projected deficits in employment by streamlining mine, plant, rail, port and utility management in the Pilbara, from a site in Perth. Other major miners are also proposing to roll out driverless trucks within the next year or two. The ADF could replicate the initiative to support some of its own current personnel deficiencies.

Western Australia in the ‘Asia-Pacific’ Century

An expanded defence posture in Western Australia would be more appropriately positioned to manage current and future contingencies. The development of Defence assets in the State’s North-West would enhance capabilities and provide flexibility in operations, responses and logistics for the ADF and its allies.

Western Australia is well placed to provide greater opportunities to support the ADF through existing defence facilities, current and projected state infrastructure projects and local skills base.

The Pilbara Cities and related State Government development initiatives in the North-West will create desirable communities capable of supporting an ADF presence. Many of the ‘quality of life’ concerns, often a contributing factor to defence retention issues, will be addressed over the coming decade, through strategies to develop and enhance social and community infrastructure and facilities in the region.
Recommendations

The Western Australian Government reiterates its support for the FPR and recommends that Defence develops a greater presence in Western Australia and the North-West to reflect geopolitical and economic realities of the region.

Specifically:

1. Defence to increase its presence in Western Australia through greater use of existing assets.
   1.1 Consolidate the two ocean navy policy through the development of an enhanced capability at Fleet Base West on Garden Island. Homeport a number of additional vessels including one Landing Helicopter Dock (LHD) and Air Warfare Destroyer (AWD) vessels and an amphibious vessel such as the soon to be commissioned HMAS Choules.
   1.2 Provide support to the above Homeported vessels through an increase in shore based positions in training, vessel maintenance and administrative areas.
   1.3 Develop RAAF Learmonth from a bare base to a fully operational air base, hosting Air Force Units tasked with air surveillance (P3 Orion and Global Hawk) and other duties.

2. Defence to develop a greater presence in the North-West of Australia to reflect the geopolitical and economic realities of the region. Defence to have a greater role in the protection of critical infrastructure in the North-West, particularly with regard to the increasing economic importance of the Pilbara on-shore and off-shore facilities. Specifically:
   2.1 Develop a new Patrol Boat Base in the North-West to support increased Navy Patrols in the region.
   2.2 Pre-position a (fly-in/fly-out) Special Air Service Regiment (SASR) Squadron in the North-West to develop doctrine, train and be prepared to provide a rapid response capability to secure off-shore facilities.
   2.3 Increasing the size of the Pilbara Regiment to include a riverine capability. In particular, emphasis should be given to increasing the size of the indigenous component.
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2.4 Increasing the number of training deployments to the region for all services and develop doctrine that is applicable to operating in North-West Western Australia.

2.5 Expand the ADF’s role to include “regional stabilisation, humanitarian and disaster relief operations” as identified in the 2009 Defence White Paper and task.

3. Develop and implement strategies consistent with promoting Australian facilities to the United States Navy (USN) and Military Sealift Command (MSC). In particular:

3.1 Promote the use of Fleet Base West for ship and submarine visits, and, WA’s capability to provide marine defence repair and maintenance services.

3.2 Develop military and dual-use infrastructure in Australia’s North-West to provide opportunities for bilateral training, logistical support and forward positioning of USN and MSC vessels and equipment in the Indian Ocean region.

4. Establish an Amphibious Task Force Capability, incorporating the vessels mentioned in Recommendation 1.1 and supported by the introduction of a regular Army infantry Battalion/Brigade, based in the Perth Metropolitan area.

5. Formalise a process that will result in a Working Group between the Department of Defence and the Western Australian Government to review and plan developments in North-West Australia.

6. Increasing military awareness of the region, by encouraging visits by senior officials, staff colleges and others on a regular basis.

7. Defence to work with the Western Australian Government in the development and maintenance of Priority Industry Capabilities within the State’s areas of expertise.

8. Centralising a coordinated approach to identifying intelligence requirements for both internal and external threats to the region.

9. Continuing the review of national, state, regional and private enterprise capabilities required to deal with any major natural, industrial or human related catastrophic event. While this is not central to the FPR, Defence is clearly part of the process.
Challenges to Western Australian Security

As Australia looks west to the Indian Ocean region, we see many of the challenges and opportunities we face for the future.²

² The Hon Kevin Rudd MP, Minister for Foreign Affairs, Speech at University of Western Australia: Australia’s foreign policy looking west, November 2010
In general terms, threats may be seen as either conventional or non-conventional:

- Conventional

The growing 'economic and other interdependencies' within the Indian and Pacific Ocean littoral states ostensibly guarantees Australia's immediate security from major potential security challenges. In the Post-Cold War environment, and in the wake of the War on Terror, Australia has developed even stronger bilateral ties with its regional neighbours. Rising geopolitical powers have so far performed as responsible stakeholders in the international environment.

Conflict, however, as noted by the 2009 Defence White Paper, has not been eradicated from the international system. Within Australia's region, changing power dynamics, traditional nationalistic rivalries, competition for resources, and complex jurisdictional claims, all have the potential, in the long-term, to lead to conflict. Australia's continued prosperity relies upon capitalising on the nation's low geopolitical risk; were this to be threatened, the impacts could be catastrophic.

As emerging players attempt to assert their rising geopolitical and military presence, and compete for sovereignty in the region, the potential for confrontation, including the threat to the closure of vital Sea Lines of Communications (SLOCs), increases. Australia's continued prosperity relies upon capitalising on the nation's 'proximity premium' to Asia, if that were to be threatened, the sector could expect heavy losses and face default on contractual obligations. Even a low intensity conflict could increase externality costs for Australian projects making them less desirable for investors and consumers.

Over the coming decades, the Indian Ocean is projected to continue to rise in strategic and economic importance, becoming one of the world's leading strategic theatres. Over one-third of Australia's coastline borders the Indian Ocean. This has afforded Australia greater economic opportunities as the ocean's littoral states expand, however, this comes with an increased sense of vulnerability from the plethora of security challenges within the region.

The economic rise of China and India will lead to patterns of change in the region, as neighbouring countries alter their behaviour in an attempt to benefit from the new economic and strategic order. Accompanying this economic rise is a concerted military modernisation program. Advancing at a rapid rate, China and India are acquiring capabilities which enable hard power projection far beyond current limits.

A drawn down of the United States (US) military around the globe remains a possibility as it tries to combat multiple issues within its borders. These relate primarily to unemployment, sovereign debt levels and a possible double-dip recession. In this scenario, Australia would be forced to pursue a more independent and self-sufficient security policy, including an expansion of its military capability and
reach, with a focus on forward defence and raising the cost of conflict to a potential aggressor.

- Non-Conventional

While the conventional threat to Australia remains negligible in the short-term, non-conventional threats may exploit susceptibilities, with potentially devastating consequences. These threats may include: terrorist organisations, disenfranchised individuals/groups, cyber warfare, espionage and transnational organised crime.

The amorphous behaviour of non-state actors makes the prediction of their actions, and the form that they will take, a formidable task. The human security threat is likely to be autonomous, with connection to an ideological maxim vague or non-existent. Estimative intelligence from national and international experience, suggests that non-state threats will be well versed in technology and may comprise home-grown disenfranchised groups or individuals, as in the attempted Holsworthy Barracks attack.

Western Australia’s economic credentials make the State highly vulnerable to non-conventional security challenges. Economic targeting remains a cornerstone of terrorist modus operandi, as demonstrated by a 2002 statement by an Al Qaeda spokesperson:

'We, the fighters of the holy war, in general are hoping to enter the next phase . . . It will be a war of killings, a war against businesses, which will hit the enemy where he does not expect us to.'

Thus, the targeting of Australian trade and critical infrastructure would be inline with long-declared objectives of terrorist networks in the region.

A diffuse set of interlinked socio-economic, technological and political factors may lead to a proliferation of terrorism in Australia and the broader region, particularly areas close to Western Australia. Over the coming decade, Western Australia’s geopolitical and export profile will continue to rise, and accordingly, become vulnerable to acts of terror.

Seaborne trade and maritime infrastructure from the Pilbara and Kimberley regions remains vulnerable to the threat of maritime violence. In 2010, Western Australian exports, the bulk of which transit via sea, accounted for 45.7 per cent of Australia’s merchandise exports, a greater share than that of Victoria, Queensland and New South Wales combined. This ratio is projected to further increase through resource exploration, investment and capacity expansions over the coming decades.

Although accounting for only two per cent of terrorist action, maritime terrorism has taken a new salience since the 11 September 2001 attacks. Multilateral efforts have met with ‘real, but qualified success’. Political, geographic and economic
deficiencies in the region, coupled with proven intent and maritime capability on the part of Al Qaeda and regional terrorist organisations, including Jemaah Islamiyah, present an opportune space for challenges to Western Australian trade.

Tactics used by the Liberation Tigers of Tamil Eelam and Al Qaeda, in South Asia and the Middle East, provide credible threat scenarios for Australia’s maritime assets. Small, high-speed boats for example may be laden with explosives and deployed against weak points in large strategically important vessels, a tactic used to devastating effect by Al Qaeda in 2000 against the USS Cole, berthed in Aden, Yemen.

- Other Considerations

Traditional security paradigms have encapsulated prevailing public perceptions of physical threats emanating from state actors. The definition of security, however, has evolved over the last few decades. Therefore, the FPR should consider broad concepts of potential future security challenges, emanating from a range of sources, including but not limited to: regional state failure; movement of illicit goods; exploitation of national resources; human smuggling; and the potential effects of climate change, including food and water security challenges.

Although Western Australia is not directly threatened by people smuggling, cross-strait movements by people attempting to enter Australia present a risk. Merchant vessels and rigs may be forced to provide assistance were an asylum vessel to encounter difficulty.

Asylum seeker shipping lanes closely mimic Australia’s SLOCs. In November 2009, a merchant LNG carrier, LNG Pioneer, was forced to change course and respond to the sinking of a refugee vessel, 350 kilometres North-West of the Cocos Islands. The diversion and subsequent ferrying of asylum seekers to Christmas Island delayed contractual obligations and would have come at a significant cost to the ship’s owners, MO LNG Transport (Europe) Ltd.

Similarly, the Australian Strategic Policy Institute, foreshadowed in a 2005 report, offshore hydrocarbon installations were at risk from illegal entry vehicles seeking asylum or assistance from platforms off the North-West coast. A prediction that rang true, when in April 2009, a boat carrying 29 Afghan men encountered difficulty and was forced to transit through an offshore oil rig, Front Puffin, near Ashmore Reef. The use of off-shore platforms as ad hoc triage centres or transit points to Australia will significantly impact upon production and lead to delays or possible cessation of productivity. The expansion of offshore hydrocarbon projects and the increases to exports when coupled with potential increases to the motivating factors for asylum seekers, present a significant challenge to the minerals and energy sectors.
The potential for State failure in close proximity to Western Australia remains a credible possibility. While the situation in East Timor remains stable at present, the nation's human development indicators are among the worst in the world. Political and security crises have resulted in limited economic opportunities, disrupted government and caused on-going hardship to citizens. These factors have the potential in the future to lead to the possible failure of the State resulting in a real and immediate security challenge for Australia.
Western Australian Considerations for Defence

Asia's expansion translates directly into increased demand and higher prices for key commodities. For Western Australia, the impact is magnified.³

³ Hon Colin Barnett MLA, Premier of Western Australia, Speech at the Baker Institute: Energy Resources Down Under: Right Place, Right Time, April 2010
Western Australia supports the intent to provide a strategic reassessment of ADF positioning and provides the following comments for consideration by the Department of Defence:

The economic and social profile of Western Australia will continue to increase in complexity over the coming decade. Driven by exports, the Western Australian economy grew to $184 billion in 2009-10, accounting for 14 per cent of Australia’s economy, a disproportionate contribution, well above the State’s 10 per cent share of the national population. Bolstered by vast infrastructure projects, a growing population and a highly efficient, interdependent and maturing economic profile, the State’s future seems ostensibly secure.

Existing and future factors, however, must be considered and addressed by the Department of Defence and the ADF, if the State and the nation are to reach their full potential.

- *Western Australia’s Resources and Energy Sector*

Despite possible market volatilities, regional developing economies are projected to continue to expand and continue to demand raw materials and energy supplies from Australia. Large and accessible known deposits will sustain current production levels for the coming decades. There is also the potential to further expand supply, through ongoing exploration and technological advances and investment.

Over the last decade, employment within the resource industry has almost doubled, mining revenue rose to 14 per cent of GDP and investment within the industry constituted a further four per cent of national GDP. Infrastructure, building and machinery developments in emerging markets will see these ratios and the sector continue to rise to 2030.

Western Australia has been particularly well placed to benefit from the increased demand for commodities. The State has a strategic world market share of iron ore (21%), diamonds (8%), alumina (15%), nickel (12%), gold (7%) and natural gas (9%) as well as heavy mineral sands including tantalum (15%), zircon (12%), limonite (10%) and rutile (8%). The resource-rich regions of the Pilbara and Kimberley have capitalised on their ‘proximity premium’ to emerging Asian markets. They are among the most productive regions in Australia, a status that is anticipated to continue in the long-term.

Large, accessible known deposits will sustain current production levels for the coming decades. Supply has the potential to be further expanded by ongoing

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4 Department of State Development, Western Australia Economic Profile, July 2011
5 Department of Training and Workforce Development, Western Australian Employment Trends and Projections, May 2010
6 Reserve Bank of Australia, Bulletin March Quarter 2011, March 2011
exploration and technological advances. As at July 2011 there were $107 billion of major resource projects either committed or underway and a further $194 billion under consideration. Approximately two thirds of this investment relates to oil & gas projects.

As stated by Andrew Forrest from Fortescue Metals Group, in reference to the Pilbara, the region is “not a short term quarry. It will sustain major wealth generation for Australia for hundreds of years”.

The long-term viability of the resource environment ensures that the sector’s activity will spill over into greater national economic opportunities through demand for labour, intermediate inputs and investments; the payments of taxes and royalties; and the boost to Australian incomes through the ownership of mining equities.

The State’s role as an area of national economic and strategic importance is accompanied by an increased sense of vulnerability to existing, as well as emerging, security challenges.

Western Australia will continue as a leader in mining efficiency in the years ahead, with increased level of automation reducing manning levels and operating costs. The Western Australian mining sector, however, is predicated on Australia’s comparatively low sovereign risk, it is therefore vital Australia does all it can to protect this comparative advantage.

**Minerals**

**Iron Ore**

Western Australia currently supplies more than one fifth of the world’s iron ore supplies\(^7\). Western Australian iron ore production contributed $48.5 billion to the national economy in 2010. The past decade has seen the exponential growth of iron ore as a contributor to GDP rise from below one per cent prior to 2000, to over three per cent by the end of the decade. The State’s large high grade reserves, proximity to key strategic markets and relative industry efficiency will see continued expansion through 2030 and beyond.

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\(^7\) Regional Development Australia, Pilbara Development Plan, 2008  
\(^8\) Department of State Development, Western Australia Economic Profile, July 2011
The bulk of Western Australia's iron ore industry will continue to be centred on operations in the Pilbara, where two of the world's richest ore deposits are located. The Mid West Region also offers significant development potential once infrastructure is established. Current operations will be augmented by the Solomon, Roy Hill and West Pilbara Iron Ore projects, which will serve to meet projected demand from continued urbanisation and industrialisation in Asia. By 2015, 450 million tonnes per annum (MTPA) of iron ore will be exported from the region, up from its current level of 180 MTPA.\(^9\)

The profitability of the industry will encourage the entry of new competitors into the market and the expansion of production beyond the Pilbara particularly in the Mid West Region. Projected high levels of growth will present market opportunities for emerging "junior" players, demonstrated in recent years by the entry of companies such as Fortescue and Atlas Iron and interest from Chinese enterprises. Sustained demand will see production of iron ore reserves in other areas, including the Yilgarn, Kimberley and Mid-West.\(^10\)

Australian iron ore export capacity will grow by 50 per cent between 2011 and 2015. Growth is likely to be bolstered in the decades ahead, as $35 billion in investment projects come online, with the vast majority of projects in Western Australia.

Structural changes to the Chinese economy, as it moves from agriculture to manufacturing, will continue to promote the nation's steel intensity. Given China's low per capita income and continued urbanisation, this phase has the potential to last for many decades. Over the next 25 years, China's urban population will grow by around fifty per cent – an increase of over 300 million people, intensifying steel demand for on-going investment in housing and infrastructure. Furthermore, economic development in India presents considerable scope for demand, as its transitions into its own phase of steel-intensive growth.

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\(^9\) ABARE, Australian Commodities, March 2011

\(^10\) Outlook for the Uranium Industry Evaluating the Economic Impact of the Australian Uranium Industry to 2030, Deloitte, April 2008
Base Metals

The mining of ores (which includes gold, copper, bauxite, lead and nickel) will continue as a significant contributor to the national GDP. The recovery of base metal prices since 2010 and the ongoing strength of gold will lead to capacity expansions and development of new projects. This was demonstrated by the re-opening of the Boddington gold mine in 2009, which is expected to be Australia’s largest gold mine once at full capacity.

Energy

Natural Gas

By 2030, Western Australia will be a major global supplier of energy to the Asian market and, potentially, beyond. Most of the world’s natural gas is primarily supplied in gaseous form through large pipelines; Australia’s geographical constraints have driven the development of liquefied natural gas (LNG). Conversion takes place at “trains”, processing plants that remove impurities and condense gas volumes for easier transportation and storage.

Australian known natural gas reserves are relatively small by global standards. Concern, however, over the long term political stability of large gas suppliers, such as Russia, Iran and Turkmenistan, has seen significant investment by Australian and multinational hydrocarbon companies and Asian utilities developing reserves. Australia is now the fourth-largest supplier of natural gas, after Qatar, Malaysia and Indonesia; projections suggest it could be the world’s largest by 2030.

Australia’s position as a politically stable destination for petroleum investment and supply has been further enhanced by the 2005 Qatari moratorium on the development of its North Dome gas field, the largest in the world. The global political shift to address climate change will lead to increased demand for natural gas as a way to reduce carbon emissions, since it is a clean burning fossil fuel.
In this context, demand from Asian energy utilities has allowed joint ventures in Australian LNG to secure long-term supply contracts to justify developing such large capital intensive projects.

The largest proven gas reserves in Australia are located in the Carnarvon, Browse and Bonaparte Basins in the North-West of Western Australia. Currently, Western Australia supports one operational LNG project, the North West Shelf, producing 16 million tonnes of LNG per annum and accounting for over 80 per cent of Australia's total production. In 2010, Western Australian LNG exports were worth over $8 billion.

Over the coming decade, the North West Shelf will be complemented by the Wheatstone, Gorgon, Browse and Pluto gas projects. These projects involve significant investment, with the Gorgon Joint Venture Gas Processing Project on Barrow Island, Australia's largest development project valued at $43 billion.

On 26 September 2011, Chevron Australia announced that it would begin construction immediately on the Wheatstone Project at Ashburton North, 12 kilometres west of Onslow on the Pilbara Coast.

The foundation phase of the Project is estimated to cost $29 billion and consists of two LNG processing trains with a combined capacity of 8.9 million tonnes per annum, a domestic gas plant and associated offshore infrastructure including the processing platform, subsea equipment, drilling and an export trunkline.

Technological improvements in extraction may also support greater development of Western Australia's shale gas reserves during the period.

**Uranium**

Civil nuclear power has, until recently, experienced an unprecedented renaissance, driven by attempts to mitigate climate change challenges and promote energy security. The Fukushima Daiichi emergency, and subsequent announcements by the Swiss and German Governments, in late May 2011, that they will phase out nuclear power stations, has led to increasing talk of the end of the "nuclear era". The need of emerging markets for uninterrupted, large scale, low-carbon energy will, however, offset potential demand shortfalls from the Japanese and European nuclear sectors.

Western Australia, with its abundance of uranium assets, is in a prime position to capitalise on these opportunities. Significant prospects exist for Western Australia to become a major global supplier of uranium with the advanced development of the Lake Maitland, Lake Way and Yeelirrie Mines throughout the next decade. Further
opportunities may be realised with the future development of the Kintyre, Mayningee, Oobagooma and Mulga Rock deposits and greater exploration of further reserves.

- **Critical Infrastructure**

The Australian Government defines critical infrastructure as:

> ‘Those physical facilities, supply chains, information technologies and communication networks which, if destroyed, degraded or rendered unavailable for an extended period, would adversely impact on the social or economic well-being of the nation or affect Australia’s ability to ensure national security’.

Approximately 90 percent of Australia’s critical infrastructure is privately owned or operated on a commercial basis. Through the *Australian Government’s National Strategy for Critical Infrastructure Protection*, however, the commercial sector and its private operators are involved in a variety of forums, along with State and Territory Governments, to manage threats, including terrorism, against the nation’s critical infrastructure.

Although the State and Territory Governments ‘have primary responsibility for the prevention of, and response to, potential terrorist incidents involving critical infrastructure’, resource and geographic constraints make this a challenging task for the Western Australian Government. A significant proportion of critical infrastructure for the offshore oil and gas industry is beyond Western Australia’s jurisdiction in Commonwealth territorial waters. The ADF must therefore consider a greater role in critical infrastructure protection across regional North-West Australia, particularly with regard to the increasing economic importance of the North West Shelf, and associated infrastructure and strategic assets located offshore beyond Western Australian territorial waters. (Refer Attachments A and B).

- **Population**

Western Australia’s population is 2.332 million people\(^1\) and is projected to reach 2.8 million people by 2030.\(^2\) Although that population will be primarily concentrated in the Perth metropolitan area, growing economic activity in the North-West of Western Australia is projected to stimulate population growth in the region.

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\(^2\)Ibid


\(^4\)Australian Bureau of Statistics, Demographic Statistics March 2011

\(^5\)Planning WA, Western Australia Tomorrow, November 2005
The Pilbara region’s population will grow by five per cent per annum over the coming decades and is projected to increase from its current of 45,000 to 140,000 by 2030, as a result of the impetus provided by the State Government’s $1 billion ‘Pilbara Cities’ Initiative. The State Government has committed to the development of the ‘Pilbara Cities Initiative’, funded through the ‘Royalties for Regions’ program through six policy objectives: building capacity in regional communities; retaining benefits in regional communities; improving services to regional communities; attaining sustainability; expanding opportunity and growing prosperity.

The State Governments Royalties for Regions program is forecasted to create desirable and resilient population centres by developing:

‘Culturally diverse communities living in environmentally sustainable and economically viable settlements; providing for communities that are safe, healthy and enjoyable places to live and work; and offering a wide range of quality cultural, educational and recreational opportunities.’

Four key delivery areas have been targeted to turn the Western Australian Government’s vision into reality. Infrastructure coordination projects, for example the development of a road system linking Karratha to Wickham, will provide the requisite foundation for development.

Land availability and development schemes will promote Karratha and Port Hedland as dynamic modern urban centres, which will have the capacity to support the vibrant economy of the region. Development of community infrastructure, with a particular focus on education and health services, will cater to the needs of the growing community. Furthermore, economic diversification will ensure the transition of the region’s urban centres from mining towns to highly developed Port Cities. This will create a wealth of opportunities within the Pilbara, for industries such as defence that would benefit from a diversified economic base, improved community facilities and strong population growth.

The strong growth is also expected to be replicated in the Kimberley. The region will continue to have levels of growth above the State’s average, with the population anticipated to reach more than 70,000 by 2031, approximately double current levels. Similar capital projects, albeit on a smaller scale to the Pilbara Cities vision, will provide greater community facilities and service opportunities for emerging industries.

The demographic transition in North-West Australia from the current widely dispersed population to more highly concentrated regional communities is accompanied by an increased sense of vulnerability to existing, as well as emerging, threats. The “Pilbara Cities” of Port Hedland and Karratha, and Broome in the Kimberley, will become vital elements in Australia’s economic, geopolitical and

15Western Australian Planning Commission, Pilbara Planning and Infrastructure Framework February 2011, p. 7
strategic future. This presents a strong case indeed for Defence to focus attention and emphasis towards strengthening its presence and operations along the western and North-West flanks of the country.

Development of the regions over the coming decades will present opportunities that can support an expanded ADF presence. Economic diversification programmes to transition the regional economic profile away from the dependence on minerals and energy sectors, will provide employment options for ADF spouses. Investment in housing, health and education infrastructure will produce dynamic communities capable of accommodating ADF personnel. The development of ports and critical infrastructure, such as the proposed North West Common User Facility (CUF), further present opportunities for the Western Australian Government to work with the ADF to complement investment and achieve mutual objectives.

- **Marine Infrastructure**

The development of the proposed Common user Facility (CUF) in the North-West offers the opportunity for the ADF and the Western Australian Government to cooperate in the development of relevant infrastructure to support ADF operations in the North-West of the State.

The proposed CUF in the Pilbara will further develop the economic base of the Pilbara, attract new industry, and a more diversified workforce to the region. The success of the Australian Marine Complex (AMC) demonstrates the benefits to be derived from this type of economic infrastructure, and the capabilities of the WA Government to plan and develop common use infrastructure and major projects of this nature.

**The Australian Marine Complex**

In 2003 the State Government established the Australian Marine Complex (AMC) CUF at Henderson WA. The AMC CUF has been an outstanding success, providing infrastructure and facilities for the oil and gas, defence, marine and resources sector on an 'as required' basis. In addition to providing cost competitive infrastructure and facilities for the users, the CUF has provided the catalyst for a wide range of businesses to be attracted to the adjacent industrial precincts. The CUF itself has benefited a broad range of manufacturing, technology and service enterprises servicing the marine, defence, oil and gas and resource sectors. Since its opening in July 2003, the AMC has delivered more than 360 projects worth in excess of $660 million and generated more than 9900 jobs.

The AMC is an integrated industrial estate servicing the defence, marine, mining and oil and gas sectors. Its creation was driven by an opportunity to create an innovative industry hub which would service an existing shipbuilding industry, while creating
facilities to help maximise economic benefits from the surge in resources activity. Located at Henderson, adjacent to Fleet Base West, the area was already an important hub for marine related industries servicing domestic and international markets.

The AMC is now home to more than 150 businesses and contains four specialist precincts – Shipbuilding, Technology, Support Industry and the Fabrication Precinct, including both the CUF and the Subsea Cluster.

The $200 million development of the AMC was a State initiative that was supported by the Federal Government through an $80 million contribution. The State has subsequently invested a further $170 million to provide infrastructure to primarily service the requirements of the Royal Australian Navy (RAN). This infrastructure included power upgrades, a new wharf, wharf services, stage one of a floating dock and multi-wheeled transporter system.

Stage One of the floating dock is rated at 12,000 tonnes and the wheeled transporters are rated at 4,500 tonnes. This State funded infrastructure enables ANZAC Frigates and Collins Class Submarines to be lifted and transferred to hardstand areas for maintenance and repair activities.

The State is currently investigating the potential to build Stage Two of the floating dock. The floating dock was designed in two separate sections that can be used independently or joined together. When joined together the floating dock is designed to lift a LHD.

Currently there is also significant demand for CUF infrastructure in the Pilbara, with the need expected to increase as more of the planned resource projects become reality. The requirement for the CUF infrastructure is primarily led by the offshore gas industry and resources sector. However, the proposed infrastructure will also be ideally suited to enhance the competitiveness of the building and construction industries and be a foundation for future defence and border protection needs.

Establishing similar CUF infrastructure in the Pilbara will provide the basis to attract new industry and enterprises. This will create employment opportunities and benefits to the community which will support the achievement of the Pilbara Cities vision.

These potential infrastructure developments both at the AMC and in the North-West provide opportunities for Western Australia and Defence to work together to ensure any additional capability meets the ADF’s requirements.
Oakajee Mid West Port

The Oakajee Mid West Development Project also offers opportunities for the ADF and Western Australia to cooperate in this major port and infrastructure development in regional Western Australia.

The Oakajee Project is a key component of the State Government's long term vision for resource development in the Mid West region. The Mid West covers 467,000 square kilometres, or nearly one fifth of Western Australia. In terms of area it is the third largest region in the State.

The Oakajee Mid West Project proposes to establish an integrated port, rail and industrial estate to support the development of the resources sector in the Mid West to ensure the long term prosperity of that region. The underpinnings of the development in the Mid West include the following major infrastructures:

- A multi-user, deep water port, capable of:
  - initially accommodating at least one cape class bulk carrier for the transport of iron ore and capacity for at least one berth to accommodate smaller vessels; and
  - ultimately, an enclosed port with berthing capacity to service a range of different vessels, including berths dedicated to the export/import of bulk materials and containers;

- An expanded rail network to the mineral deposits of the Murchison that will integrate effectively with existing and future rail infrastructure and to be operated in accordance with the State Rail Access Regime; and

- An internationally competitive strategic industrial estate which will accommodate sustainable value adding industry of the State's resources.

Availability of a deep water port in the Midwest, and resultant allied marine/defence service industry, provides further opportunities to support an increased Navy presence in WA through an alternative docking and service/maintenance facilities.

- **Fishing**

Western Australia, and particularly, the North-West regions of the State, will continue to be major contributors to the nation's total finfish catch. In 2010-2011, the commercial fisheries sector was worth over $400 million. Australia has sovereign rights over the water column extending 200 nautical miles from the shoreline. This principle also applies to the Western Australian administered external territories, and is referred to as the Australian Fishing Zone (AFZ).
The further depletion of fish stocks in the Pacific and Atlantic Oceans in the coming decades, coupled with the prospect of food shortages, have the potential to increase pressure on Indian Ocean fish stocks from Asian and European fishing vessels, which are operating in larger numbers. This may suggest that Australian waters bordering the Indian Ocean would likely require greater Royal Australian Navy resources to protect and ensure the future prosperity of Australian fisheries against poaching and other interrelated security problems that could arise.

- **Geography**

Western Australia’s geography presents opportunities for the ADF to develop a rigorous national defence strategy. Western Australia’s northern and western coastlines remain vulnerable to asymmetrical security challenges.\(^{17}\) Coupled with this sense of vulnerability, economic prosperity in Western Australia’s immediate region is leading to the proliferation of increasingly sophisticated militaries. Greater ADF assets positioned in the State’s north would be effective in mitigating potential security threats, and be consistent with the ADF’s role in securing Australia’s strategic interests.

As noted in the White Paper, the ADF’s fundamental strategic purpose is to defend Australia against foreign military aggression.\(^{18}\) Defence Force assets stationed in Western Australia would be best suited to meet this objective, with the strategic reach to counter security challenges from South East Asia and the Indian Ocean.

The second strategic interest, securing Australia’s immediate neighbourhood, details the ADF’s role in fostering stability, integrity and cohesion within the region. The Defence White Paper details the ADF’s responsibility to counter major internal challenges that threaten the stability of neighbouring countries, with a ‘particular salience in this regard to the continuing stability of Indonesia’. The limited ADF presence in the North-West of Australia is inconsistent with meeting this strategic interest. The proximity of a North-West base would afford the ADF greater influence and scope of operations in the immediate region.

The third strategic interest of the White Paper is to contribute to the ‘strategic stability of the Asia-Pacific region’. The White Paper acknowledges that Australia has a duty to contribute to the development of a resilient and secure community in South-East Asia. A greater appreciation of Western Australia’s North-West in national strategic planning would allow the ADF strategic depth in the Asia-Pacific region.

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\(^{17}\) Australian Strategic Policy Institute, Our Western Front, March 2010

\(^{18}\) Department of Defence, Defending Australia in the Asia Pacific Century: Force 2030. May 2009 p 41
The fourth strategic interest set out in the White Paper, notes that 'Australia cannot be secure in an insecure world', and details the ADF's role in creating a 'stable, rules-based global security order'. Positioning a greater ADF emphasis in the north of Western Australia would contribute to this strategic interest, by countering low-level threats, such as human trafficking, narcotic smuggling and illegal fishing in the immediate context, and, in the long-term, by providing a counterweight to rising geopolitical competition in the Indian Ocean.

The White Paper also notes that Australia's relative wealth and expectations from the international community mean that the ADF's role will increasingly expand to include 'regional stabilisation, humanitarian and disaster relief operations'. As demonstrated by recent humanitarian operations, these are primarily focused along the Indian Ocean littoral and in South-East Asia. Developing defence capabilities in the West and the North-West would correctly position the ADF to meet these expanding objectives.

Greater emphasis on Western Australia's north would further mitigate non-conventional security challenges. The concentration of Western Australia's population along the coast creates large swathes of the State's hinterland that are isolated, and thus vulnerable to potential security challenges. The anonymity the isolation affords may be exploited by non-state actors who could use the area to train and plan future nationally focused security challenges. The presence of Defence Force assets would be effective in discouraging potential exploitation of the region's isolation.

- United States Navy

Australia's defence relationship with the United States (US) remains a key pillar of our security policy. As noted by the 2005 Defence Update, US engagement in the region has provided the foundation of 'strategic stability and security since World War II, and is no less relevant 60 years on'. As the US engages in its own Global Force Posture Review, the ADF should naturally promote Western Australian capability, infrastructure and territory to support mutually beneficial outcomes. ADF development of military and dual-use infrastructure in Western Australia's North-West would present opportunities for bilateral training, logistical support and forward positioning in the Indian Ocean, as suggested at the 2011 Shangri-La Dialogue by former Secretary of Defence, Robert Gates.¹⁹

The US alliance has remained the cornerstone of Australia's security posture. Western Australia remains receptive to the issues and needs of the US.

¹⁹ Australian and United States Joint Working Group on the US Force Posture Review, Australia United States Ministerial Consultations, November 2010
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For the US, the relationship remains one of great depth and importance based on shared security and economic interests, in addition to democratic values and a number of other cultural similarities. The alliance with Australia has been of substantial value to the US. It contributes to the United States' global strategic reach through such means as port calls, exercises, intelligence sharing and the hosting of various bases. Defence and intelligence relations between the two countries remain close.

As outlined in the 2010 Joint Communiqué from the AUSMIN talks in Melbourne, Washington and Canberra hold shared views on many international issues, including the desire for stable, peaceful and prosperous Asian and Indian Ocean regions; and the continuation and enhancement of the rules-based international order that is currently underwritten by the US and which has benefitted it and Australia tremendously.

Given the important role played by the military in underscoring diplomatic activity, encouraging the greater use of Fleet Base West by the US Navy would contribute greatly to the security of both countries by enhancing regional stability in the East Asian and Indian Ocean regions. The greater use by the USN of Fleet Base West would also support the international trading system upon which so much of Australia’s wealth depends. Neither can the attendant economic benefits of port calls be underestimated.

Importance must therefore be placed on increasing the attractiveness of Fleet Base West to the USN, not as a permanent homeport, but as a more regular user, with greater frequency of port calls by surface and submarine vessels. Key agencies including Defence, the State and relevant local authorities must be at the forefront of developing such an initiative.
Western Australia in the "Asia Pacific Century"

The sea-air gap to our north is at the strategic centre of our primary operational environment.\textsuperscript{20}

\textsuperscript{20} Department of Defence, Defending Australia in the Asia-Pacific Century: Force 2030, 2009, pg. 81
Western Australia’s Security Posture

Presently, some 3,458, or around six per cent of the ADF’s permanent personnel are stationed in Western Australia. Consistent with Defence’s two-ocean defence policy, Royal Australian Naval personnel form the majority of the contingent with lesser numbers from the Army and Air Force. Western Australia is well placed to provide greater opportunities to support the ADF through existing defence facilities, current and projected state infrastructure projects and the local skills base.

The 2009 White Paper confirmed the paramount role of the ADF in developing strategy with counter potential threats and challenges to Australian security. Consistent to this, over the coming decades, Defence will launch a myriad of innovations including the formulation of new doctrine and the development of new weapons, intelligence, logistics, communications, and command and control capabilities.

Amidst this avalanche of change, it is essential that the ADF has the strategic posture to meet the challenges of a changing world. The security challenges that Australia faces have shifted from conventional to asymmetric; in the future, these threats have the potential to change further and broaden along several dimensions. Equally, the Indo-Pacific region will continue as a dominant theme in Australia’s national security discourse. The ADF no longer has the convenience of focussing on one primary threat, on the assumption that, if it is postured to meet that, it can handle any lesser threats than might simultaneously emerge.

In this context, the FPR represents a positive development in ensuring the ADF is adequately positioned and has a sufficient framework to address strategic concerns for the coming decades.

Increases to the North-West’s defence capability would allow greater synchronisation with current and future operations in the region for the ADF and its allies. The development of infrastructure and facilities would complement expanded capabilities and serve the gamut of current and future roles including deterrence, war-fighting, security cooperation, humanitarian and patrol operations.

Geopolitical Considerations

Force Posture is an essential element of Australia’s security strategy. An expanded ADF focus in Western Australia’s North-West would provide a foundation upon which the future operational capability of the ADF can be built. Defence resources allocated in the Pilbara and the Kimberley would be orientated towards ensuring both near-term and future strategic considerations.

The adage, “prediction is very difficult, especially about the future”, serves to remind us that the allocation of defence resources should not simply reflect short-term
security considerations. Australia faces a variety of strategic challenges that necessitate a greater focus on Western Australia. The state’s economic profile is a major component of national security interest; it is therefore imperative the region is accorded a greater ADF focus.

The objectives of the ADF’s current operations may be met, only to be challenged in the future within our immediate region. The Indo-Pacific’s volatility, from weak states, ethnic tension and religious/ideological extremism, may provide denizens for potential asymmetric operations against the nation. Targeting of the North-West’s economic and critical infrastructure remains a distinct possibility. An increased ADF presence in the region would go some way towards mitigating such challenges.

In the long-term, the continued economic and military expansion of states in the region may lead to more traditional great power security threats. Development of the region’s defence capabilities would build security for both the ADF and its allies.

The threat from strategic competitors may take many aspects, not just military. As an island-nation, Australia relies on the good order of its SLOCs. An expanded ADF maritime capability in Western Australia would ensure continued national prosperity by ensuring unfettered international trade and the security of routes of commerce.

The shipping routes used by ships transiting to and from Western Australia are long and potentially hazardous. Australia’s relative isolation also means vessels bound to and from the region may easily be identified. Ore and LNG carriers passing through the Straits of Timor are only likely to be travelling to and from Australia. The expansion of northern Australia’s seaborne commerce over the next decade will lead to a proliferation of maritime challenges in Australia’s SLOCs.

Navy vessels and aircraft stationed in the State’s North-West would be ideally suited to protect Australia’s maritime interests, as well as conducting extended patrols into Australia’s Exclusive Economic Zone. Development of defence assets in the region would cater for a range of possible ADF contingencies. The North-West’s geostrategic value would greatly assist in resupply, heavy lift, maritime and reconnaissance operations. The region has the potential to become a forward base and logistics hub, capable of providing the ADF and its allies with the requisite rapid response.

Given the build up of commercial vessels and platforms operating off the North-West coast and the level of activity in human smuggling, illegal fishing and movement of illicit goods along such a vast coastline, the establishment of a Patrol Boat Base in the North-West is recommended. Such a Base would facilitate improved patrolling in this high value area and significantly add to the security of the region.
Operational Requirements

ADF capabilities must be able to meet the force projection demands placed on them from existing and emerging threats to security. The competing priorities from overseas operations and Defence’s commitment to national security mean the demands placed on the ADF are many and varied. Changing power dynamics within the Indo-Pacific will potentially lead to even greater demands on the ADF.

Flexibility of options and responses, speed of action, logistics and facilities for the ADF and our allies will continue as critical parameters of Australian defence strategy. Increased defence resources in North-West Australia would posture the ADF in a manner commensurate with national strategic interests.

Placement is an essential element in force projection. Australia has historically placed troops where its national interests dictate; the moves to Darwin and defence activity in the Bass Strait reflect these priorities. Enhanced defence assets in the North-West would provide greater linkages between areas of strategic importance and the ADF.

Regional security would be greatly enhanced by a larger Pilbara Regiment with riverine capability and increased exercises in the region. Additionally, a rotational detachment of Special Air Service Regiment should be deployed to the region to develop doctrine, and to train and prepare, in order to ensure a rapid response capability for off-shore hydrocarbon installations.

Positioning one of the forthcoming Canberra Class LHD Ships and a Hobart Class AWD at Fleet Base West would be consistent with the environment of potential contingencies for which they have been procured.

The establishment of a regular Army Brigade based in Perth, trained and equipped to provide an integrated amphibious capability, will greatly enhance Australia’s ability to project forces and to respond to a range of military contingencies as well as disaster relief and humanitarian support. The establishment of a dedicated Army Brigade in Western Australia focused on amphibious capability is recommended.

Additionally, supporting the development of a CUF in the North-West and activating the RAAF Curtin and Learmonth bare-bases would provide strategic depth for potential theatres of operation.

Mobility

Improved defence resources in both the metropolitan area and the North-West Australia would ensure requisite combat power at the point of need. The ADF relies on mobility to meet the gamut of operations; a larger deployment of forces to the region would significantly enhance that mobility. A more balanced strategic posture, with a West and North-West focus, would provide greater opportunities for
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capabilities upon which the ADF's deterrence and dissuasion credibility is based. The proximity of the region to potential contingencies would allow the ADF and potentially its allies, to respond quickly and with the resources required to achieve the desired objectives.

The increasing geostrategic importance of the North-West dictates that ADF hedges against uncertainty. The Pilbara and Kimberley have the capacity to also serve as key elements in the ADF’s future capability by becoming a strategic lift, logistics and forward operations centre.

Quality of life

Defence analysts have contended 'quality of life' issues are a key concern for the potential relocation of ADF assets to the North-West. As a volunteer force, these issues should feature as a central consideration in any defence posture. Although ADF personnel may be used to the hardships that come with military life, their families cannot be expected to accept harsh conditions of service. Family considerations are among the paramount concerns for ADF personnel, including location stability and desirability.

Perth features facilities and services comparable to other large Australian state capitals. It is therefore currently well positioned to accept a regular Army Brigade and greater military deployments to Fleet Base West and other defence facilities in the surrounding area.

The scale and character of regional towns in the North-West will change dramatically over the coming decades. State Government policies to increase housing availability and options and community facilities will create more 'liveable' communities to attract and cater to the needs of an increasing population.

Expansion of communities in the North-West will mimic the region's economic growth. The Royalties for Region’s Pilbara Cities vision and greater economic opportunities in the Kimberley, as a result of agricultural and hydrocarbon initiatives, will lead to development of critical infrastructure facilities and services.

Economic diversification strategies will provide opportunities beyond the mineral and resources sector, creating a robust, diverse and sustainable economic profile. The region will require an expanded labour market providing potential employment prospect for ADF spouses and their families.

Plans exist throughout the North-West to upgrade and replace much of the region's utility infrastructure. Current and future planned investment will focus on increasing

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21 ASPI, Who goes where? Positioning the ADF for the Asia-Pacific century, September 2011
22 Department of Defence, Defence Personnel Environment Scan 2025, 2006
the capacity of the water, energy and telecommunications networks and systems required to support population and industry development.

Changes to the size and composition of the North-West's population will provide the impetus for a wider range of community facilities and support. Health requirements will be addressed through expansion of hospital facilities, such as the redevelopment of Nickol Bay Hospital into the Karratha Health Campus, and the expansion of associated health services. The primary, secondary and tertiary education sectors will expand to meet the greater demands for services; provisions exist for a regional university campus. Population expansion in the Kimberley and Pilbara will lead to the enhancement of cultural, retail and civic facilities, including the construction of multipurpose recreational facilities in Karratha and Port Hedland.

Costs

The Western Australian Government recognises the considerable costs associated with changing force posture. Opportunities, however, exist for Western Australia and the Department of Defence to cooperate in facility and infrastructure development. The proposed deep water port at Oakajee and the Common User Facility in the Pilbara are but two projects that can be designed to cater for ADF requirements.

State Government investments in the North-West will increase the economic and social capacity of the Kimberley and Pilbara. The aforementioned 'quality of life' investments in the region are largely being borne by the Western Australian Government. As such, the Department of Defence would not be liable for large scale quality of life capital programmes to sustain a defence presence. A Commonwealth contribution to these projects however could accelerate development, and ensure Defence requirements are accommodated in strategic and master planning stages of project development.

A greater force posture in Western Australia does not necessarily entail significant additional budgetary outlays. Capability currently exists at Fleet Base West for greater naval assets. Similarly, other defence assets already exist in Perth, providing the architecture for an increased Defence capacity. Further scope for savings exists in sales of estates from former Defence sites and decreased operational costs as the ADF moves into more accurate positioning to meet potential contingencies.

- **Western Australian Supply and Support of Defence Capability**

The continuing expansion of and structural changes to the Western Australian economy will produce an environment with greater opportunities for the ADF. West Australian industry has an existing and developing capacity to meet the requirements of the ADF in design, manufacturing, information and communication technologies (ICT), project management and other areas relevant to Defence needs.
Western Australia is currently responsible for approximately 10 per cent of the nation’s defence industry. The sector is comprised of a core group of major prime contractors, whose headquarters are located in Eastern Australia, that dedicate all or a significant portion of their capability to defence and defence related activities. Austal Ships, the designer of the United States Navy Littoral Combat Ship and builder of the RAN’s Armidale Class Patrol Boats, is a prime contractor based in Western Australia. This capability is supplemented by a growing base of SME’s that enters or leaves the defence market on a contract-by-contract basis. SMEs have ensured continuity of work through diversifying their portfolio and contributing to the state’s expanding maritime, resource and technology sectors.

Western Australia has the capacity to be a larger contributor to the supply and support of the current force, and by extension, the future force. Thirty-five per cent of projects detailed in the Defence Capability Plan would be suitable for development within Western Australia, yet currently the State has the lowest industry revenue levels of any of the mainland states. Western Australia is well placed to assist in the development of Priority Industry Capabilities (PICs)\(^\text{23}\), with an advanced, technologically-able economy with niche defence capabilities, including ICT, marine and cyber security. The increasing sophistication of the Western Australian economy from sustained demand and economic diversification beyond the resource sector will drive innovation and further support the ADF’s Strategic Industry Capabilities (SICs).\(^\text{24}\)

In particular PIC number nine which relates to ship dry docking facilities, the AMC has the only operating Common User Facility capable of dry docking military vessels to support repair and maintenance activities. The State has developed significant expertise in operating this common use ship dry docking facility and is willing to share its expertise with the Department of Defence in developing this PIC.

The State’s economic expansion over the coming decades will be underpinned by a skilled and adaptable workforce. Over the next decade, the labour and skill-intensive phase of the minerals and energy sectors growth will slow. This will result in the increased availability of a highly qualified and experienced workforce that is well positioned to manage increased demand from potential growth in the Western Australian defence industry. In the medium term as the construction phase of major projects winds down, the labour requirements of the resource industry will shift. This, accompanied by increasing automation in mining operations, will result in a broad skill base of workers with technical and trade qualifications and professionals with demonstrated expertise in computing, engineering and project management.

\(^{23}\) According to the 2009 White Paper, PICs refer to “those industry capabilities which would offer an essential strategic advantage by being resident within Australia and which, if not available, would significantly undermine defence self-reliance and ADF capability”.

\(^{24}\) SICs are “capabilities which provide Australia with enhanced defence self-resilience, ADF operational capability, or longer term procurement certainty.”
available to other industry sectors such as Defence. Western Australia is, therefore, uniquely positioned to meet defence business requirements.

Nationally, SMEs have identified continuity of work as a major constraint and disincentive to doing business in the defence industry. The cyclical demands of the ADF and its impact on SMEs are lessened in Western Australia, as companies have strategically diversified their customer base into other sectors. The Defence and defence related industry in Western Australia has established itself as a commercially competitive and viable entity, particularly within the maritime and ICT sectors. In addition to building defence capability, the Western Australian maritime industry is responsible for the design, manufacturing and logistic support of major projects to the global market. Demand from the ADF and the resource industry has provided a catalyst for ICT SMEs within Western Australia. The State has an existing and developing technical, geospatial and cyber-security potential. Correspondingly, the commercial and technological capabilities of SMEs may have a direct application for defence.

The Western Australian Government welcomes opportunities to continue to work with the ADF to complement planned and proposed investment and to achieve mutual objectives. Defence is one of the Western Australian Department of Commerce’s priority sectors. The Department’s Industry, Science and Innovation Division (ISI), facilitates strategic investment in industrial, scientific and innovation capacity and seeks to capture benefits for the State. A fundamental element of the ISI’s role is to support current and future defence development within Western Australia. Initiatives, such as the existing AMC in Henderson and the proposed marine based CUF in the Pilbara, highlight the established and growing synergies between Western Australia and the ADF.

Through government and industry support, an advanced workforce and a sophisticated and expanding infrastructure network, Western Australia is primed to play a greater role in all facets of ADF requirements and capabilities.

*Information Capability*

The 2009 Defence White Paper noted that information superiority provides a ‘winning edge in comprehensive situated awareness, rapid decision making, networked capabilities, and the precise application of force.’ 25 Western Australia’s expanding ICT sector can provide enhanced information capability to defence, through business/logistics information management systems, electronic products produced for military application and systems integration.

Defence has made Intelligence, Surveillance and Reconnaissance (ISR), a priority component of future ADF needs. ISR will enhance the ADF’s “situational awareness” in operational environments, including, according to the White Paper, Australia’s

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'northern approaches'. A number of companies within West Australia have a
geospatial focus that can enhance ADF skills and sophistication in Geographic
Information Systems (GIS), strengthening mapping, charting, navigation and
targeting data.

The ADF will continue to develop a 'networked force' in a further effort to develop a
greater situational awareness. Future defence assets are forecast to feature stream lined
information systems to ensure a 'defence-wide architecture'. The
Western Australia ICT sector can provide the requisite system integrators for that
network transformation. Industry liaison and the State's education and training sector
can provide further support during the transition.

The White Paper forecasts cyberspace to become over the coming decades, a
theatre of operations that is increasingly vulnerable to the threats from individuals,
terrorists, criminals and, potentially state actors. While responsibility for cyber-
security will continue to be managed by the Cyber Security Operations Centre within
the Defence Signals Directorate, significant scope exists for the Western Australian
ICT industry to augment current capabilities. iVec, a joint venture of CSIRO, and the
four public universities (with significant ongoing funding support from the Western
Australian Government) will continue to foster and promote scientific and
 technological information through the provision of supercomputing and eResearch
services. Various SMEs within the private sector are currently engaged in research
and development of data security technology which would complement potential
ADF contingencies.

Maritime Capability

Western Australia's advanced maritime industry base and infrastructure is well
positioned to supply and support an increased presence of naval inventory. The
State's $3.5 billion marine sector has established itself as commercially competitive
and a leader in the design, fabrication, repair and maintenance of world-class
vessels to the international market.

The refit, maintenance and production of the current and planned marine assets of
the ADF will require specialised skills and sophisticated capabilities. The diversified
nature of the State marine sector allows contractors to draw more readily on skills
and experience in the engineering base and, potentially, provide leverage from other
projects.

The State Government has heavily invested in the sector to create a 'world-class
defence shipbuilding hub'.26 The majority of maritime sector activity within Western
Australia is undertaken at the AMC facility near Henderson, south of Perth. The
complex features world-class multi-user facilities including:

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26 Department of Commerce, Report on the Western Australian Marine Industry, March 2010
• Common User Facility (CUF)
• Central Services Facility
• Australian Centre for Energy and Process Training Facility (ACCEPT)
• Marine Support Facility

The AMC has allowed the marine industry to successfully undertake advanced maritime projects. West Australian-based prime defence contractors and SMEs have an existing and demonstrated ability to deliver outcomes to the ADF’s complex and stringent demands. The ASC’s ongoing maintenance of the Collins class submarine fleet is a prime example. An increased West Australian-based naval force with support from local industry and infrastructure would allow the Royal Australian Navy to meet the levels of preparedness specified by the Chief of the Navy.

**Manoeuvre Capability**

The increase of defence assets in Western Australia will require increased logistic and transport support. The ADF’s manoeuvre capability is based on land transport, airlift and amphibious support.

The maritime component of manoeuvre capability is discussed in the preceding section of the report.

Recommended increases to resources for the Pilbara Regiment and training deployments in the North-West will require additional field/ armoured vehicles and trailers. The sheer size of Western Australia means that operations in the state will be road transport intensive.

Currently, the bulk of Australia’s defence vehicles are imported. This pattern is projected to continue over the coming decades. In these circumstances, the West Australian commercial sector can play a greater role in the supply and support of the ADF’s transport requirements through mechanical engineering, metal fabrication and maintenance.

**Defence Munitions**

The ADF weapons systems comprise a sophisticated range of ballistic, insensitive, precision and guided weapons/ munitions systems. Software-based technology will continue as an integral element in the integration and interpretation of data to create more efficient munitions systems, particularly within Precision and Guided Munitions (PGM).

While PGMs are serviced in-house or returned periodically to the manufacturer for deeper system maintenance, technological developments in the commercial sector, such as expanded information capabilities, can be adopted by Defence. The Western Australia’s advanced ICT sector has the scope to play an expanded role in
the ballistic efficiency and effectiveness of munitions, thereby improving the tactical and operational flexibility of the ADF.

Western Australian ICT developments in the commercial sector, driven by moves to enhance efficiency in the resource sector, also provide scope for the support of future munitions. Systems integration technology for the mining sector could be replicated to assist in interaction between precision weapons, launch platforms and command and control systems.

**Aerospace**

Although Australia is an aircraft importer, the local aerospace industry competes in the international market as a niche manufacturer and supplier. The military component, which includes building and repair of aircraft engines/airframes/helicopters; guided missile manufacturing; and avionics equipment repair, accounts for 33.5 per cent of the total aerospace sector in Australia. The Western Australian aerospace industry has 78 businesses, comprising around 13 per cent of the national total, that are primarily focussed in the supply of maintenance, repair and overhaul services.

Software system enhancements, original systems development work, structural enhancements and major life extensions, are required to maintain the readiness of ADF aircraft.

Original Equipment Manufacturer (OEM) intellectual property rights preclude most of such enhancements taking place in Australia. Ten per cent, of modification expenditure is, however, completed nationally.²⁷ Scope exists within Western Australia for an expanded role in the supply and support of current and future aviation requirements. An existing number of SMEs offer engineering, manufacturing and software skills and technologies that could add significant value to ADF capabilities.

While the Defence Science and Technology Organisation (DTSO) is an integral component in the readiness of ADF aircraft, opportunity exists for Western Australia to play a larger role in aerospace Research and Development. Technology developed for the mineral and energy sectors may have an application to the defence sector, particularly in engineering and ICT. The State's commercial sector has a demonstrated success in global design projects, including the Joint Strike Fighter program: Western Australia also boasts a large concentration of research facilities, including tertiary education institutes and Technology Park in Bentley, around six kilometres from the Perth CBD.

As noted previously, Christmas Island's geographic position near the equator makes it an attractive location for a number of aerospace purposes, including

²⁷ ACIL Tasman, A Profile of the Australian Defence Industry, November 2004
communications, heavy space launch and meteorological operations. Its unique positioning places it under a number of communication and satellite “footprints”, paths of transit in the electromagnetic spectrum that make it an ideal listening post to intercept foreign communications. A number of communications facilities on the island have been erected by the Federal Government to this end. Christmas Island's location near the equator means that it is in an optimum position to launch payloads into orbit. Generally, the further from the equator a launch facility is, the more expensive it will be to secure the payload into orbit.

Other considerations

The Western Australian commercial sector is capable of handling, an enhanced role in the non-equipment support needs of defence including asset, personnel, garrison, training and professional services.
Recommendations
The Western Australian Government reiterates its support for the FPR and recommends.

1. Defence to increase its presence in Western Australia through greater use of existing assets

At the centre of military capability in Western Australia is Fleet Base West, south of Perth. New naval capabilities should seek to exploit the strategic location of this Base. As such, a number of the new vessels entering service including an Air Warfare Destroyer, a Landing Helicopter Dock Ship and an amphibious support vessel such as the soon to be commissioned HMAS Choules should be permanently positioned at Fleet Base West for rapid deployment into the region. The basing of these additional vessels should be supported by an increase in shore based positions in training, vessel maintenance and administration to assist in retention of personnel.

Due to the anticipated increase in significance of the region due to economic and geopolitical shifts, RAAF Base Learmonth should move from a “bare base” to a fully operational air base, hosting Air Force units tasked with air surveillance (P3 Orions and Global Hawk) and other duties.

2. Defence to develop a greater presence in the North-West to reflect geopolitical and economic realities of the region

While State and Territory Governments (within their jurisdiction) have primary responsibility for prevention and response to terrorist incidents involving critical infrastructure, resource and geographical constraints make this a challenging task. The ADF should take a greater role in protecting critical infrastructure across regional North-West Australia, particularly offshore energy assets outside of the State’s jurisdiction.

2.1 Naval patrol vessels should be based in the North-West

Defence should establish a Patrol Boat base in operational proximity to the proposed Common User Marine Facility in the North-West. The facility could support the varied maritime requirements of the ADF. An increased maritime presence, such as the stationing of Armidale Class Patrol Boats would provide maritime security and surveillance as well as other tasks, such as the policing of Australian territorial waters from illegal activity.

With support and capability in the commercial and government sectors, Western Australia is well placed to support a stronger ADF presence, particularly in the State’s North-West. Defence assets can be supported by existing and developing State and commercial infrastructure.
2.2 Pre-position a (fly-in/fly-out) Special Air Service Regiment (SASR) Squadron in the North-West to develop doctrine, train and be prepared to secure off-shore facilities
In combination with increased training deployment, a rotational squadron of Special Air Service Regiment soldiers should be continuously deployed to the North-West to greatly enhance security and rapid-response capability. The model for this could be the SASR Bass Strait deployments that occurred some years ago.

2.3 Increasing the size of the Pilbara Regiment to include a riverine capability. In particular, emphasis should be given to increasing the size of the indigenous component
Recognising the significant role of the Regiment, additional resources must be directed towards enabling a greater functional performance, so it is better able to fulfil its tasks. Critical attention needs to be placed on the manpower shortage of the Regiment. In addition, priority should be given to the creation of a riverine capability. The coast and inland waterways present a challenge and capability gap that is not currently being met by the ADF. A riverine force would act to secure the coastal waterways and inlets. As part of this increase in size and capability, the indigenous soldier component of the regiment should be augmented, drawing personnel and expertise from the local region.

2.4 Increasing the number of training deployments to the region for all services and develop doctrine that is applicable to operating in North-West Western Australia
Exercises in the region should incorporate combined inter-service operations focussed on threat elimination and asset protection. Personnel from all three services should conduct exercises which simulate potential attacks on valuable on-shore and off-shore assets. Operations in the region would enable a more effective military response should any actual threat arise, including that of an imminent attack directed at industrial and mining sites. An enhanced presence through frequent exercises will provide greater operational knowledge of this important region to Australian Defence Forces.

2.5 Regional stabilisation & disaster relief
Expand the ADF’s role to include "regional stabilisation, humanitarian and disaster relief operations" as noted in the 2009 Defence White Paper and train and equip the ADF accordingly. Developing capabilities in the west and North-West would correctly position the ADF to meet this expanding role.

3. Developing and implementing strategies to promote Fleet Base West to the United States Navy including promoting WA’s capability to provide marine defence repair and maintenance services
SUBMISSION TO THE AUSTRALIAN DEFENCE FORCE POSTURE REVIEW BY THE WESTERN AUSTRALIAN GOVERNMENT

Australia’s military relationship with the United States is one of great depth and importance and both countries share a desire for a stable, peaceful and prosperous Asian and Indian Ocean region. The US Navy plays an important role in this region and increased visits by US Navy vessels to the west coast would contribute to the security of Australia’s Western and North-Western approaches.

3.1 Fleet Base West should be promoted as a destination of choice for US Navy ships and submarines

As the US engages in its own Global Force Posture Review, the ADF should promote Western Australian capability, infrastructure and territory to support mutually beneficial outcomes.

3.2 Dual use infrastructure should be developed in Australia’s North-West

ADF development of dual use facilities in the North-West would provide greater opportunities for bilateral training, logistics support and forward positioning of US vessels and equipment in the Indian Ocean region.

4. Establish a regular Army Brigade in Perth to support the Amphibious capabilities of the LHD

The commissioning of LHD into service in Australia will provide a greatly enhanced capability to project forces and to respond to disaster relief, humanitarian aid and regional stabilisation events. Given the size of Australia and the range of possible contingencies, one LHD vessel should be based on the East Coast and one on the West Coast. Critical to the effectiveness of the LHD will be having appropriately equipped and trained Army personnel nearby the Port of embarkation.

The ADF should establish a regular Army Brigade in Perth as apart of an Amphibious Task Force capability. It is noted that with the exception of the SAS Regiment, Western Australia does not have a significant regular Army presence as do the other mainland States.

5. Formalising a process that will result in a Working Group between the Department of Defence and the Western Australian Government, to review developments in North-West Australia

As the Western Australian Government’s “Pilbara Cities” initiative becomes a reality, and population levels increase, along with critical infrastructure, it will be necessary to formalise planning discussions between the Government and Defence. Key aspects which will need to be covered, in order to ensure the greatest possible levels of communication and understanding, will include discussions of infrastructure developments, population growth levels, the
development of new capabilities and the identification of, and responses to, possible future threats. Conducted on a regular basis, the discussions will be a vital tool in planning for the security needs of the North-West of Western Australia.

6. Increasing military awareness of the region generally, by encouraging visits by senior officials, staff colleges and others

In a country the size of Australia, distance remains a key issue and nowhere is this more so than in Western Australia. The sheer distance between Canberra and the North-West of Western Australia, or even Perth, for that matter, highlights the importance of increasing military awareness of the region.

Given that nothing compares to first-hand experience, priority should be given to encouraging visits to the region by senior personnel and departmental officials so that they can experience directly the unique qualities and challenges of the region and its defence needs. Staff colleges could be encouraged to visit the North-West as part of their curricula. Reciprocal visits to Canberra are also of value by potentially reaching a wider audience.

7. Defence to Work with the Western Australian Government in the development and maintenance of Priority Industry Capabilities within the State’s areas of expertise

The State Government is a vitally important stakeholder in the security of the State and the development of additional military capabilities. The State should be invited to participate in the strategic and operational appreciation process that supports the review outcomes.

Over the longer term, as the Western Australian Government’s “Pilbara Cities” initiative becomes a reality, and population levels increase, along with critical infrastructure, it will be necessary to formalise planning discussions between the Government and Defence. Key aspects which will need to be covered, in order to ensure the greatest possible levels of communication and understanding, will include discussions of infrastructure developments, population growth levels, the development of new capabilities and the identification of, and responses to, possible future threats. Conducted on a regular basis, the discussions will be a vital tool in planning for the security needs of the North-West of Western Australia.
8. Centralising a coordinated approach to identifying intelligence requirements for both internal and external threats to the region

Given the large number of agencies involved in the security of Western Australia, the importance of a coordinated approach to identifying intelligence requirements cannot be overstated. The Protective Security Coordination Centre (PSCC) offers a good template, but further coordination should be enhanced to facilitate greater identification and sharing of intelligence requirements in order for the PSCC to fulfil its role to the greatest extent possible.

9. Continuing the review of national, state, regional and private enterprise capabilities required to deal with any major natural, industrial or human related catastrophic event. While this is not central to the FPR, Defence clearly is part of the process

The continued review of disaster response capabilities is a very important adjunct to the Force Posture Review. Given that Defence may be likely to play at least some role in any catastrophic event, its inclusion, along with that of State and Commonwealth agencies, is essential. Defence input to any disaster response plan is particularly highlighted in the case of the North-West of Western Australia where, in an extreme event, Defence may possess the most suitable – possibly even the only – assets capable of reaching the affected area speedily. Coordination and the formulation of agreed response strategies between all agencies will be vital in a truly catastrophic event and Defence participation must be sought.

Conclusion

In this submission, the Western Australian Government has provided a number of key areas for consideration in addressing the opportunities for Defence to ensure the optimum future positioning of its assets. The State looks forward to the release of the FPR and to working with the Department of Defence and the ADF to ensure that the nation has its military assets in locations that will serve the future needs of all Australians.